CDX-GT52W/GT520

SERVICE MANUAL

Ver. 1.0 2007. 07

US Model
CDX-GT52W/GT520
Canadian Model
CDX-GT52W

Photo: CDX-GT52W

• The tuner and CD sections have no adjustments.

AUDIO POWER SPECIFICATIONS
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-101FC-188//Q
Optical Pick-up Name	DAX-25A

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section
FM

Tuning range	87.5 – 107.9 MHz
Antenna (aerial) terminal	
	External antenna (aerial) connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	
	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz
Antenna (aerial) terminal	
	External antenna (aerial) connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	
	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (front/rear)
	Subwoofer output terminal (mono)
	Power antenna (aerial) relay control terminal
	Power amplifier control terminal

– Continued on next page –

FM/AM COMPACT DISC PLAYER

9-887-792-01
2007G04-1
© 2007. 07

Sony Corporation
eVehicle Division
Published by Sony Techno Create Corporation

SONY®

Inputs	BUS control input terminal BUS audio input terminal Remote controller input terminal Antenna (aerial) input terminal AUX input jack (stereo mini jack)
Tone controls	Low: ±10 dB at 60 Hz (XPLOD) Mid: ±10 dB at 1 kHz (XPLOD) High: ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative ground (earth))
Dimensions	Approx. 178 × 50 × 180 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 11 oz.)
Supplied accessories	Card remote commander: RM-X151 Parts for installation and connections (1 set)

MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

Design and specifications are subject to change without notice.

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TEST DISCS

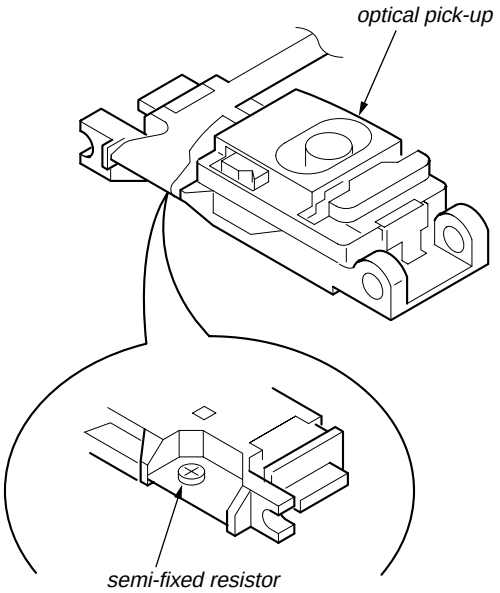
Please use the following test discs for the check on the CD section.

YDES-18 (Part No. 3-702-101-01)
PATD-012 (Part No. 4-225-203-01)

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

• **CD Playback**
You can play CD-DA (also containing CD TEXT) and CD-R/CD-RW (MP3/WMA/AAC files also containing Multi Session).

Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 WMA AAC	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

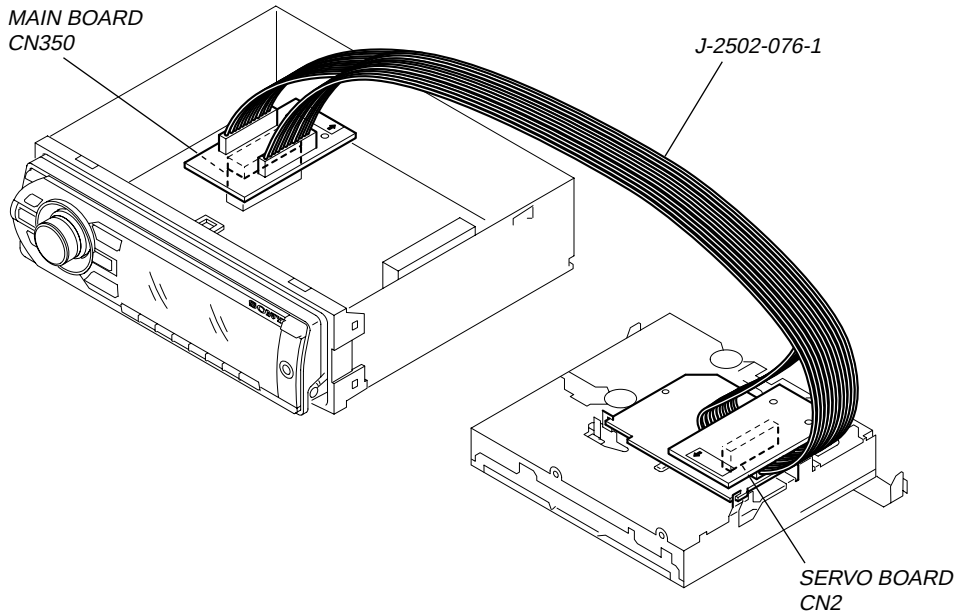
Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

- Connect the MAIN board (CN350) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



NOTE FOR REPLACEMENT OF THE SERVO BOARD

When repairing, the complete SERVO board (A-1177-362-A) should be replaced since any parts in the SERVO board cannot be repaired.

NOTE FOR REPLACEMENT OF THE AUX JACK (J901)

To replace the AUX jack requires alignment.

1. Insert the AUX jack into the KEY board.
2. Place the KEY board on the front panel.
3. Solder the three terminals of the jack.

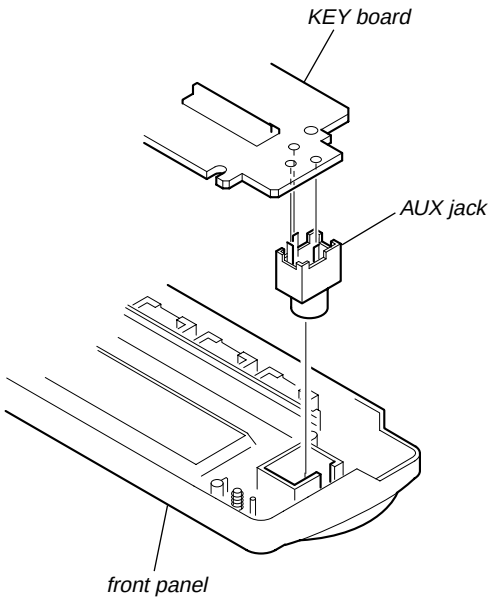


TABLE OF CONTENTS

1. GENERAL

Location of controls and basic operations 5
Connections 5

2. DISASSEMBLY

2-1. Sub (AUX) Panel Assy 8
2-2. CD Mechanism Block 8
2-3. MAIN Board 9
2-4. SERVO Board 9
2-5. Chassis (T) Sub Assy 10
2-6. Roller Arm Assy 10
2-7. Chassis (OP) Assy 11
2-8. Chucking Arm Sub Assy 11
2-9. Sled Motor Assy 12
2-10. Optical Pick-up Section 13
2-11. Optical Pick-up 13

3. DIAGNOSIS FUNCTION 14

4. DIAGRAMS

4-1. Block Diagram –Main Section– 17
4-2. Block Diagram –Display Section– 18
4-3. Printed Wiring Board –Main Section– 19
4-4. Schematic Diagram –Main Section (1/3)– 20
4-5. Schematic Diagram –Main Section (2/3)– 21
4-6. Schematic Diagram –Main Section (3/3)– 22
4-7. Printed Wiring Board –Sub Section– 23
4-8. Schematic Diagram –Sub Section– 23
4-9. Printed Wiring Board –Panel Section– 24
4-10. Schematic Diagram –Panel Section– 25

5. EXPLODED VIEWS

5-1. Main Section 29
5-2. Front Panel Section 30
5-3. CD Mechanism Section (MG-101FC-188//Q) 31

6. ELECTRICAL PARTS LIST 32

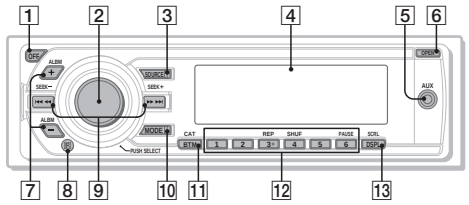
SECTION 1
GENERAL

This section is extracted from instruction manual.

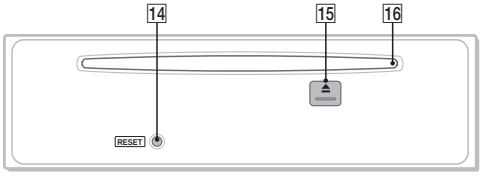
• Location of controls and basic operations

Location of controls and basic operations

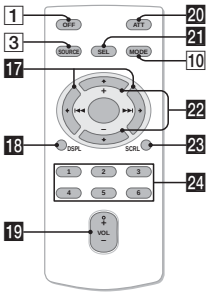
Main unit



Front panel removed



Card remote commander RM-X151



This section contains instructions on the location of controls and basic operations. For details, see the respective pages.
For optional device (CD/MD changer, etc.,) operation, see "Using optional equipment" on page 10. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 **OFF button**
To power off; stop the source.

2 **Volume control dial/select button** page 9
To adjust volume (rotate); select setup items (press and rotate).

3 **SOURCE button**
To power on; change the source (Radio/CD/AUX)*.

4 **Display window**

5 **AUX input jack** page 10
To connect a portable audio device.

6 **OPEN button** page 5

7 **ALBM +/– buttons** (during MP3/WMA/AAC playback)
To skip albums (press); skip albums continuously (press and hold).

8 **Receptor for the card remote commander**

9 **SEEK –/+ buttons**
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).

10 **MODE button** page 8
To select the radio band (FM/AM)*.

11 **BTM/CAT button** page 8
To start the BTM function (press and hold).

12 **Number buttons**
CD:
③: **REP** page 8
④: **SHUF** page 8
⑥: **PAUSE**
To pause playback of a CD on this unit. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

13 **DSPL (display)/SCRL (scroll) button** page 8
To change display items (press); scroll the display item (press and hold).

14 **RESET button** page 4

15 **⏏ (eject) button** page 5
To eject the disc.

16 **Disc slot** page 5
To insert the disc.

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 4).

17 **⬅ (⏮)/➡ (⏭) buttons**
To control CD/radio, the same as (SEEK) –/+ on the unit.
Setup, sound setting, etc., can be operated by ⬅ ➡.

18 **DSPL (display) button**
To change display items.

19 **VOL (volume) +/– button**
To adjust volume.

20 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

21 **SEL (select) button**
The same as the select button on the unit.

22 **⬆ (+)/⬇ (–) buttons**
To control CD, the same as (ALBM) +/– on the unit.
Setup, sound setting, etc., can be operated by ⬆ ⬇.

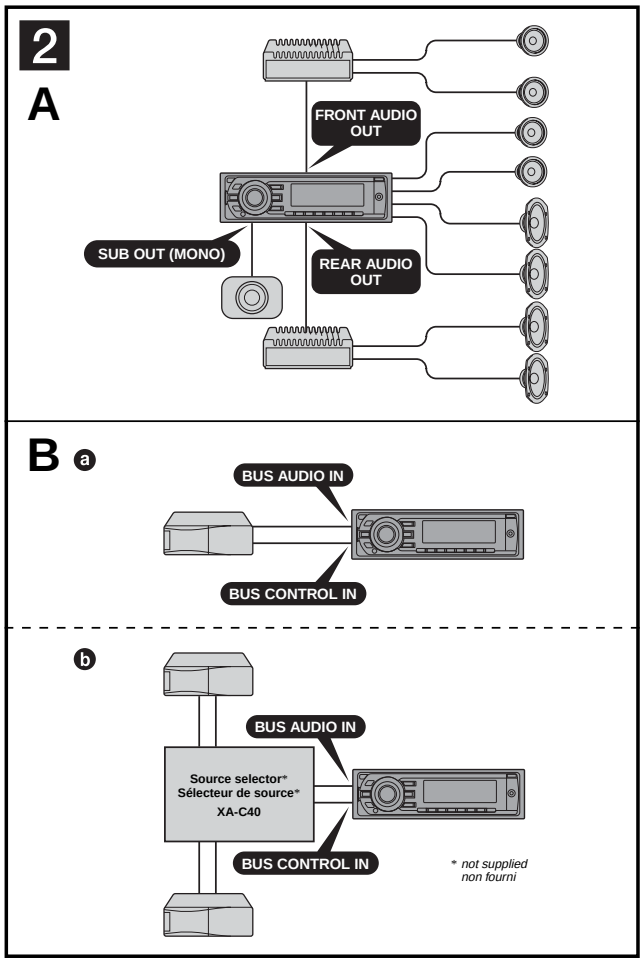
23 **SCRL (scroll) button**
To scroll the display item.

24 **Number buttons**
To receive stored stations (press); store stations (press and hold).

** In the case of a CD/MD changer or SAT tuner being connected; when (SOURCE) is pressed, the connected device ("MD," "XM" or "SR") will appear in the display, depending on which device is connected. Furthermore, if (MODE) is pressed, you can switch the changer, or SAT tuner band.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

• Connections



Connection example 2

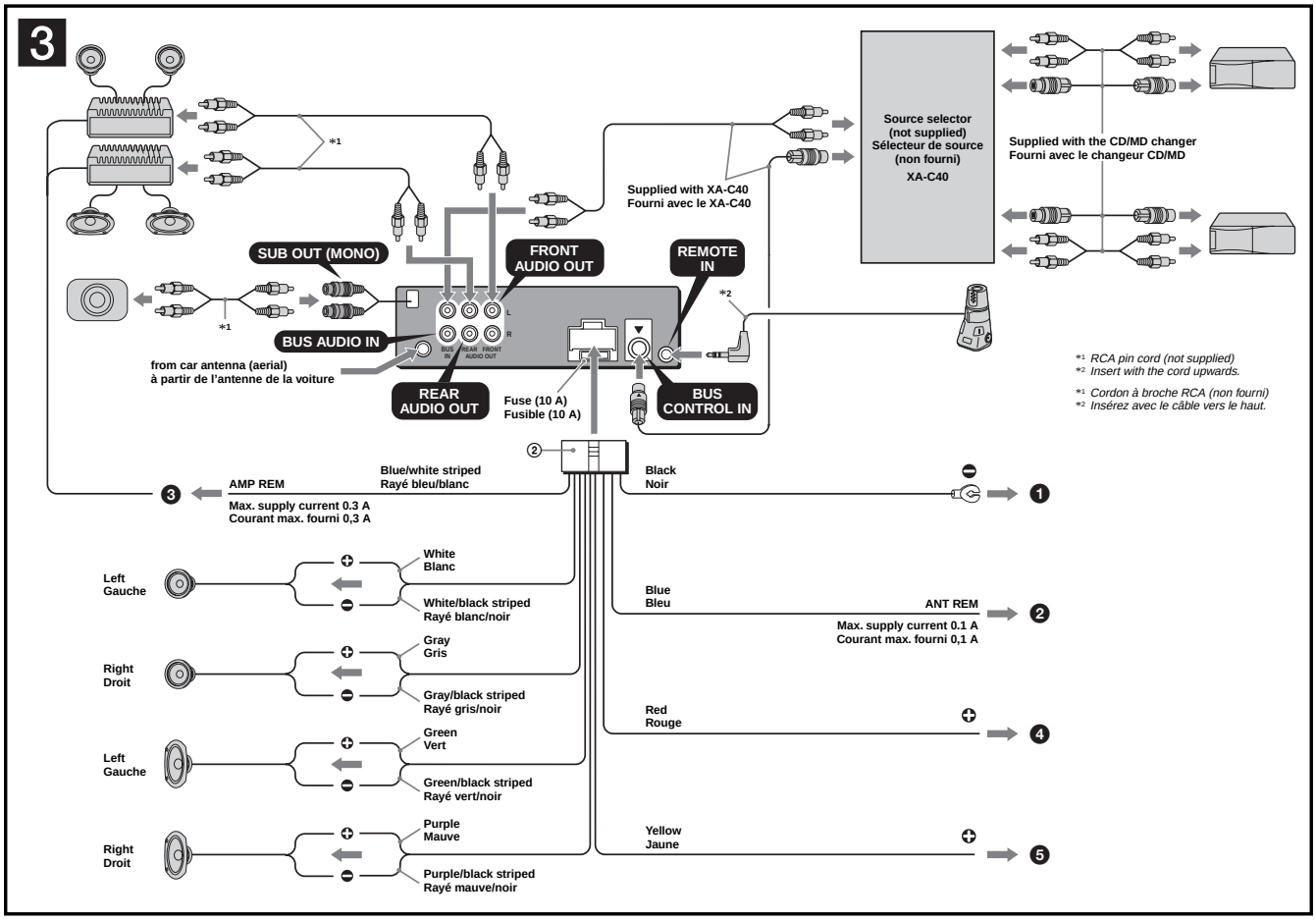
***Notes* (2-A)**
- *Be sure to connect the ground (earth) lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

***Tips* (2-B)**
- *When connecting only a single CD/MD changer or other optional device, connect directly to this unit.*
- *For connecting two or more CD/MD changers or other optional devices, the source selector XA-C40 (not supplied) is necessary.*

Exemple de raccordement 2

***Remarques* (2-A)**
- *Raccordez d'abord le câble de mise à la masse avant de raccorder l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

***Conseils* (2-B)**
- *Lorsque vous raccordez uniquement un seul changeur CD/MD ou un autre appareil en option, raccordez-le directement à cet appareil.*
- *Le sélecteur de source XA-C40 (non fourni) est nécessaire pour raccorder deux changeurs CD/MD ou plus ou d'autres appareils en option.*



Connection diagram 3

❶ **To a metal surface of the car**
First connect the black ground (earth) lead, then connect the yellow and red power supply leads.

❷ **To the power antenna (aerial) control lead or power supply lead of antenna (aerial) booster**

Notes
- *It is not necessary to connect this lead if there is no power antenna (aerial) or antenna (aerial) booster, or with a manually-operated telescopic antenna (aerial).*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the +12 V power terminal which is energized in the accessory position of the ignition switch**

Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground (earth) lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna (aerial) in the rear/side glass, see "Notes on the control and power supply leads."*

❺ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground (earth) lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna (aerial) control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna (aerial) in the rear/side glass, connect the power antenna (aerial) control lead (blue) or the accessory power supply lead (red) to the power terminal of the existing antenna (aerial) booster. For details, consult your dealer.*
- *A power antenna (aerial) without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground (earth) lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement 3

❶ **À un point métallique de la voiture**
Branchez d'abord le câble de mise à la masse noir et, ensuite, les câbles d'entrée d'alimentation jaune et rouge.

❷ **Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne**

Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ **Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**

Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
  Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❺ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

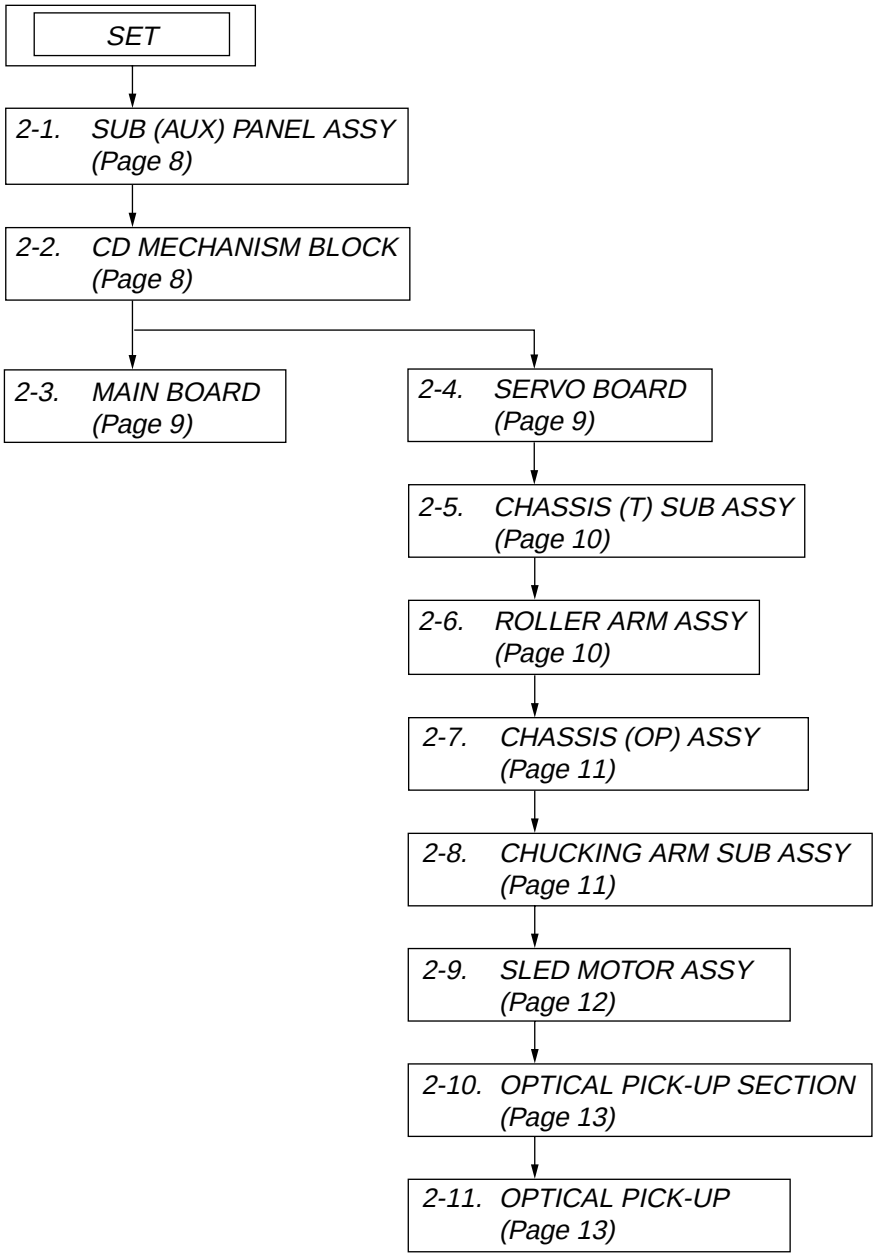
Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout problème de fonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si le haut-parleur et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

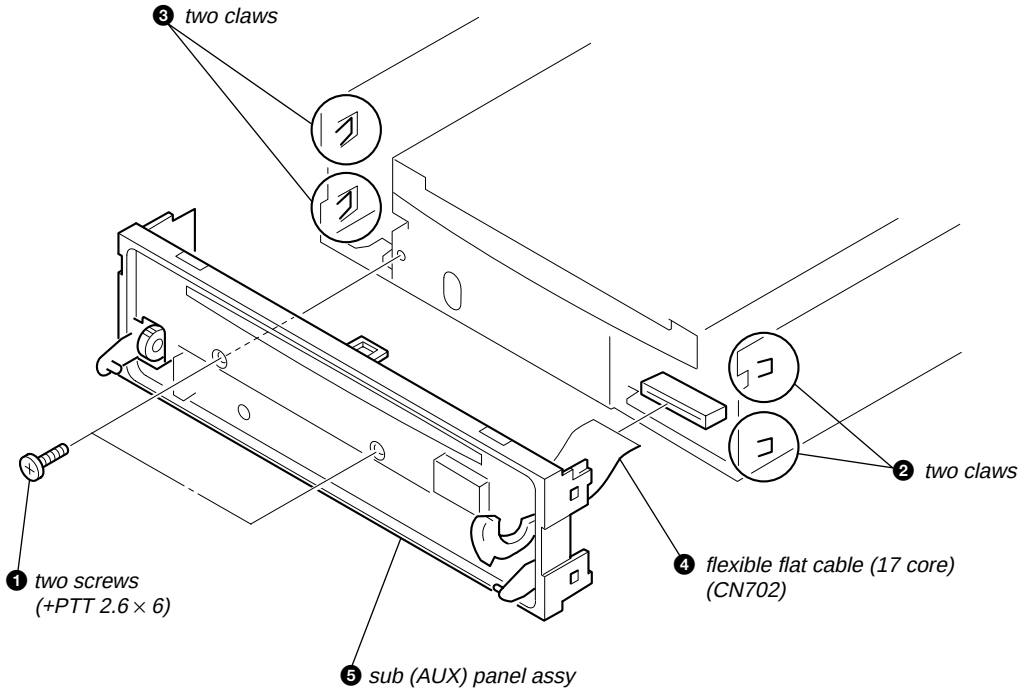
SECTION 2
DISASSEMBLY

Note: This set can be disassemble according to the following sequence.

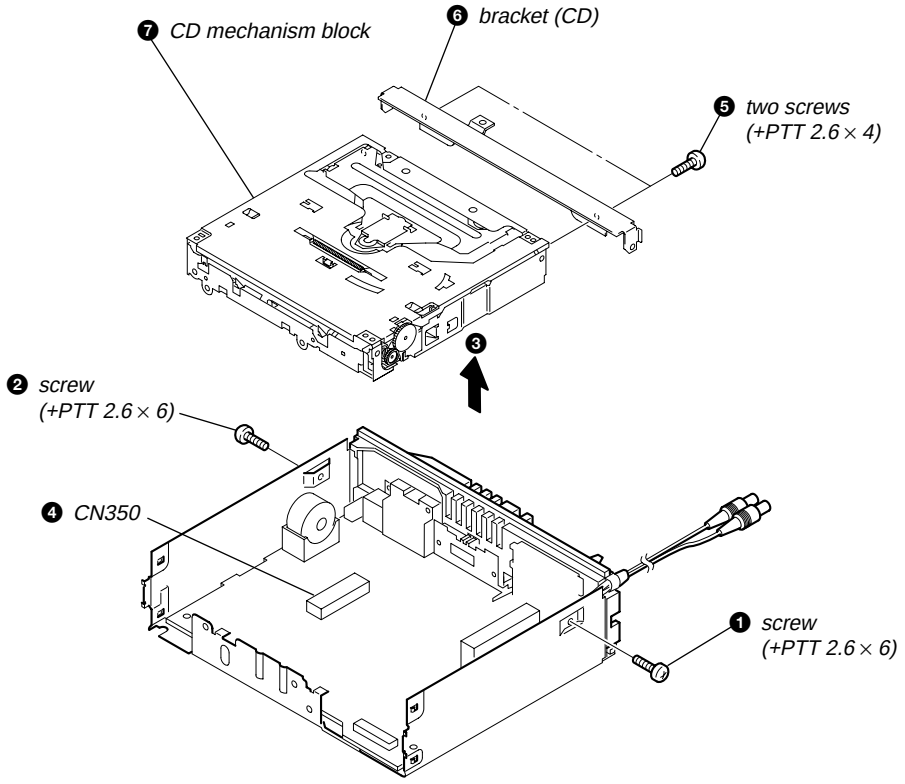

SET
2-1. SUB (AUX) PANEL ASSY (Page 8)
2-2. CD MECHANISM BLOCK (Page 8)
2-3. MAIN BOARD (Page 9)
2-4. SERVO BOARD (Page 9)
2-5. CHASSIS (T) SUB ASSY (Page 10)
2-6. ROLLER ARM ASSY (Page 10)
2-7. CHASSIS (OP) ASSY (Page 11)
2-8. CHUCKING ARM SUB ASSY (Page 11)
2-9. SLED MOTOR ASSY (Page 12)
2-10. OPTICAL PICK-UP SECTION (Page 13)
2-11. OPTICAL PICK-UP (Page 13)

Note: Follow the disassembly procedure in the numerical order given.

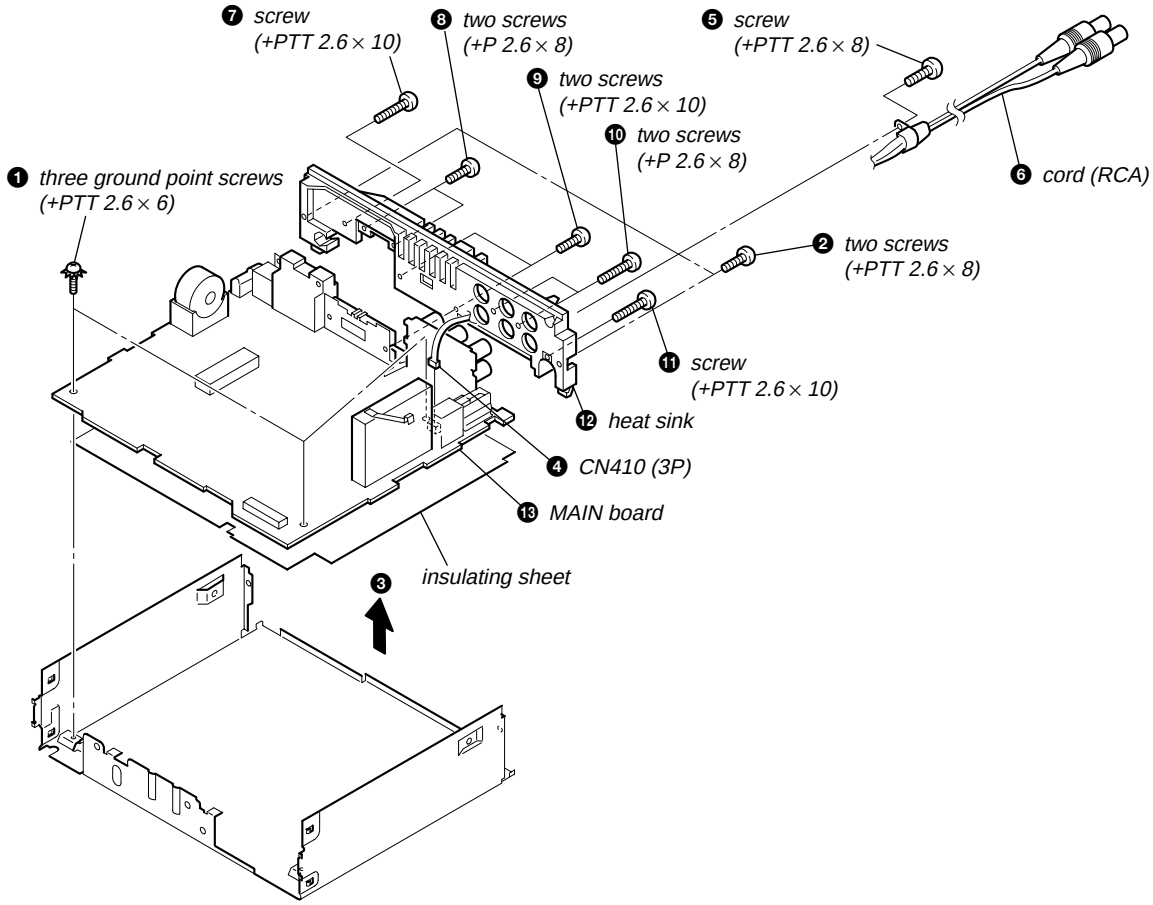
2-1. SUB (AUX) PANEL ASSY



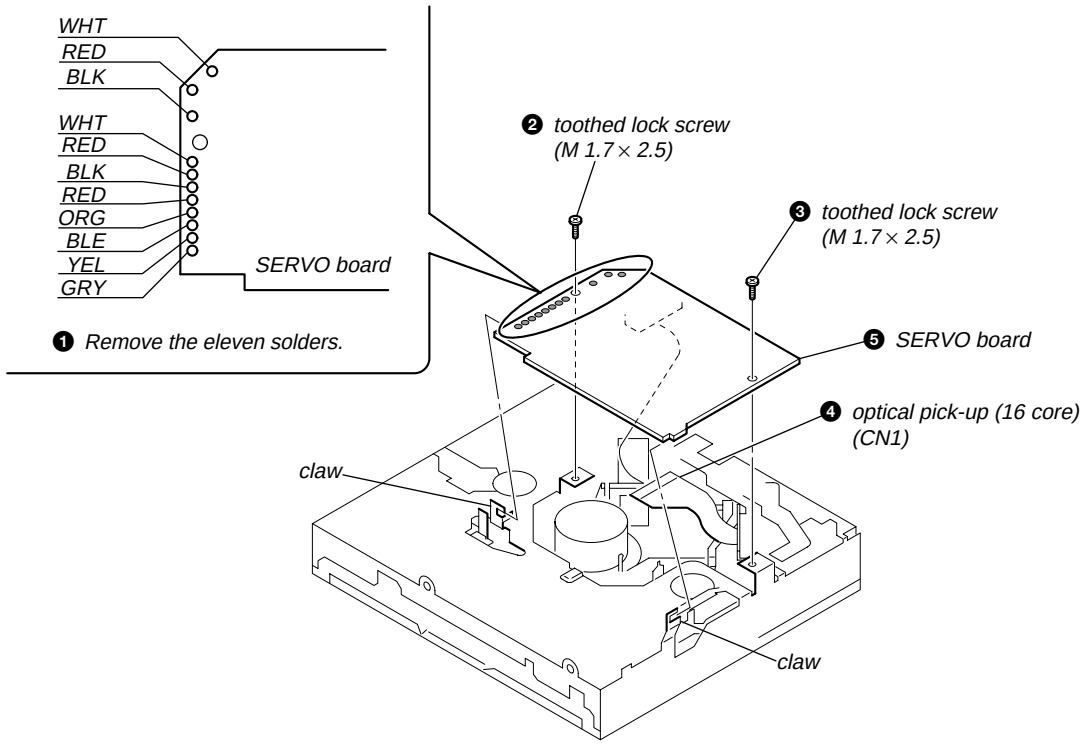
2-2. CD MECHANISM BLOCK



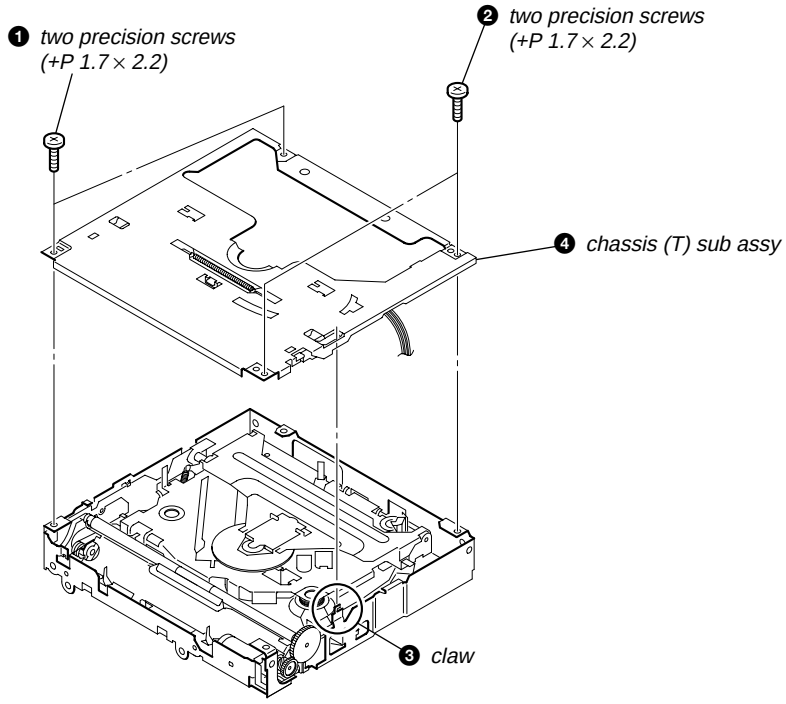
2-3. MAIN BOARD


❼ screw (+PTT 2.6 × 10)
❽ two screws (+P 2.6 × 8)
❺ screw (+PTT 2.6 × 8)
❾ two screws (+PTT 2.6 × 10)
❿ two screws (+P 2.6 × 8)
❻ cord (RCA)
❶ three ground point screws (+PTT 2.6 × 6)
❷ two screws (+PTT 2.6 × 8)
⓫ screw (+PTT 2.6 × 10)
⓬ heat sink
❹ CN410 (3P)
⓭ MAIN board
insulating sheet
❸

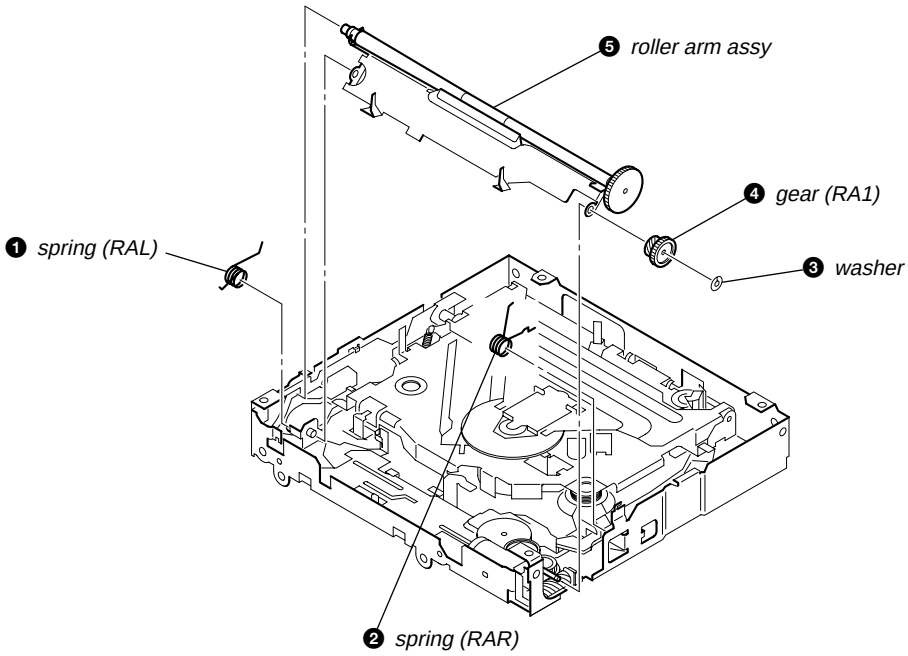
2-4. SERVO BOARD



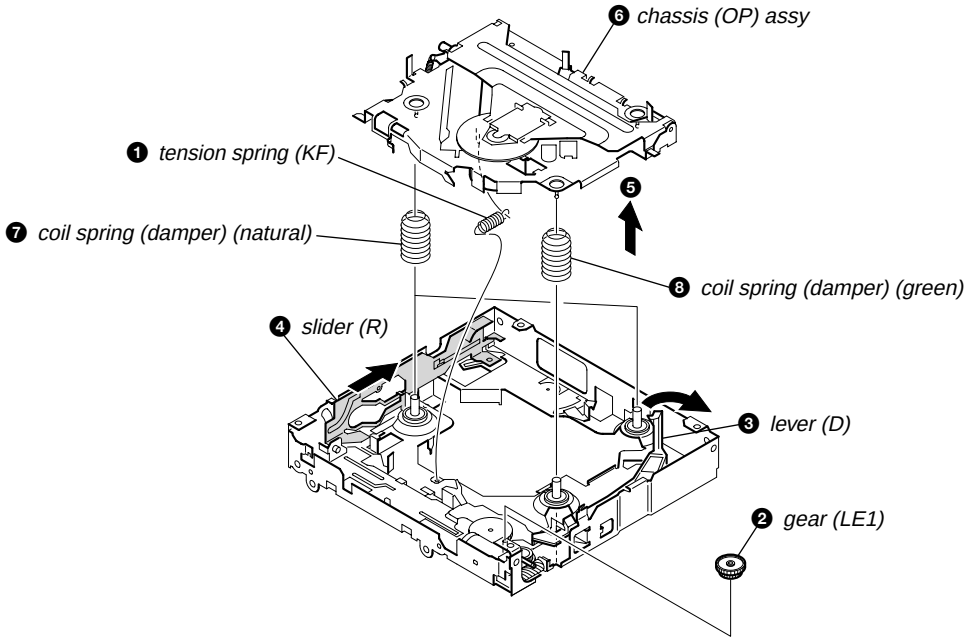
2-5. CHASSIS (T) SUB ASSY



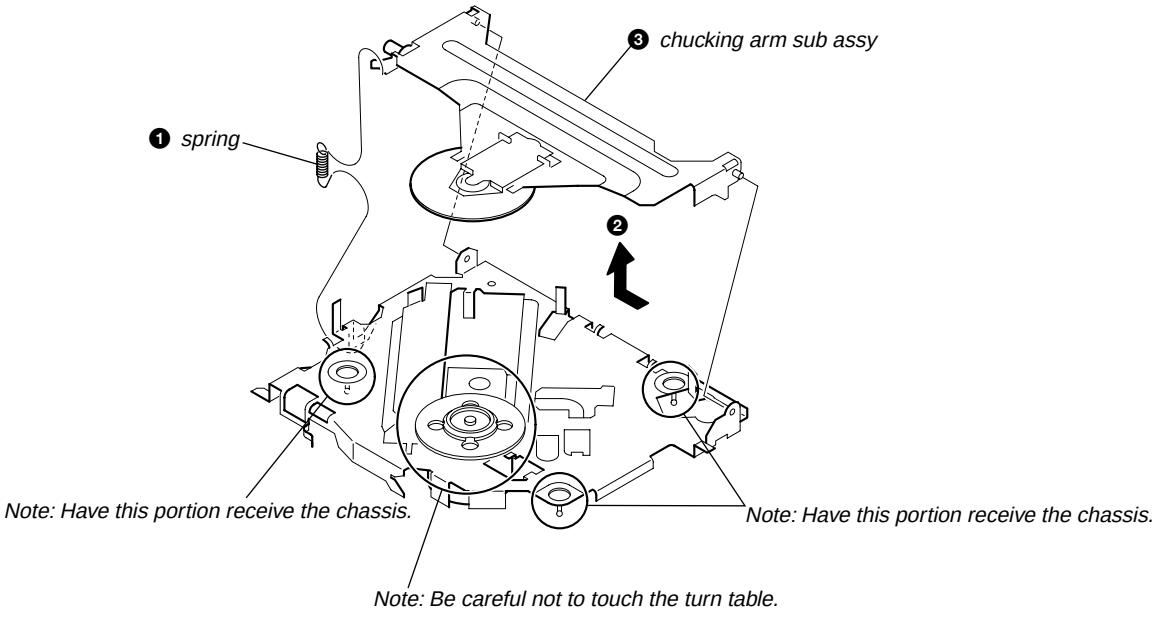
2-6. ROLLER ARM ASSY



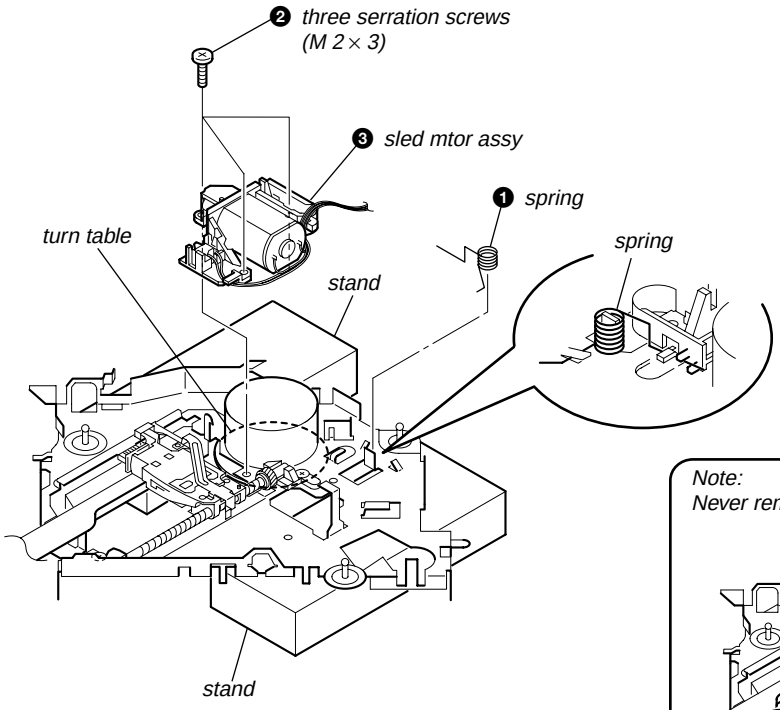
2-7. CHASSIS (OP) ASSY



2-8. CHUCKING ARM SUB ASSY

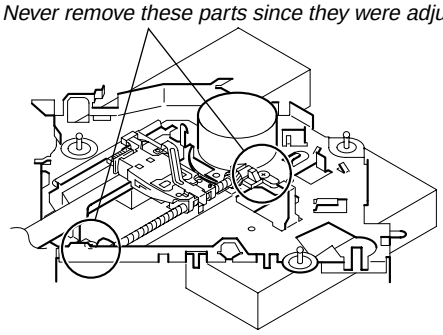

❸ chucking arm sub assy
❶ spring
❷
Note: Have this portion receive the chassis.
Note: Have this portion receive the chassis.
Note: Be careful not to touch the turn table.

2-9. SLED MOTOR ASSY

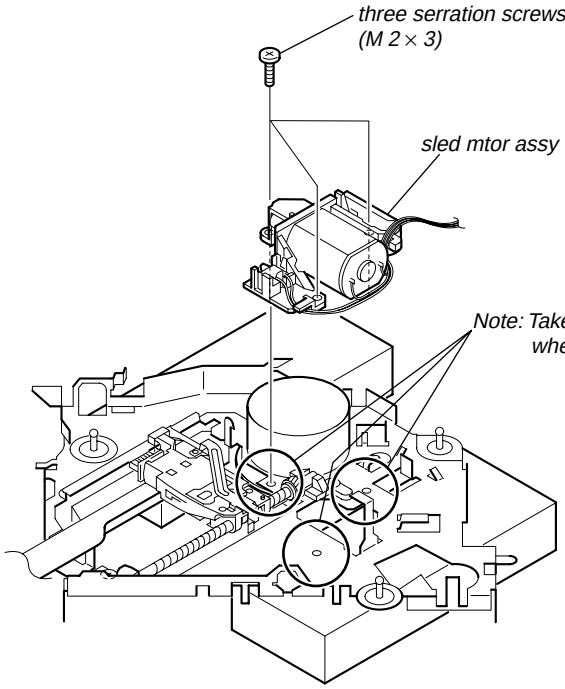


Note: Place the stand with care not to touch the turn table.

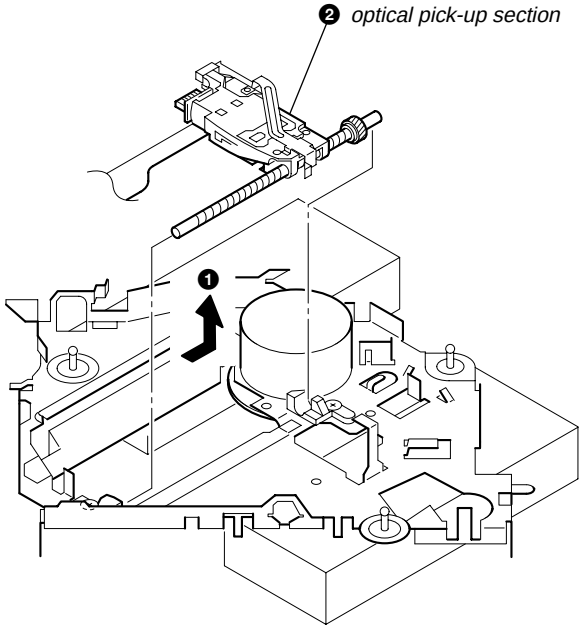
Note:
Never remove these parts since they were adjusted.

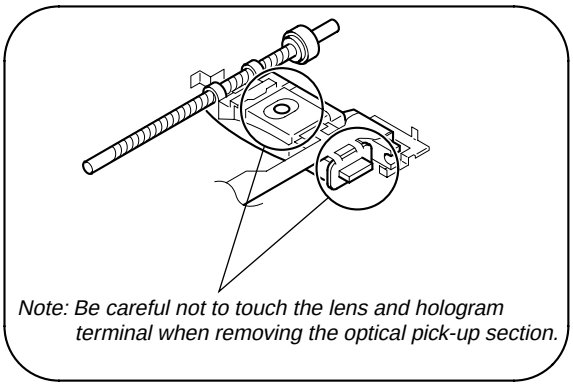


Note for Assembly


three serration screws
(M 2 × 3)
sled mtor assy
Note: Take care to prevent the chassis from being bent
when tightening the three machine screws.

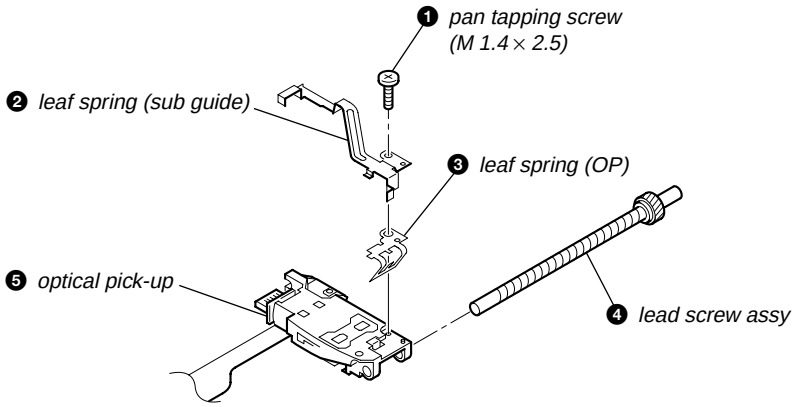
2-10. OPTICAL PICK-UP SECTION



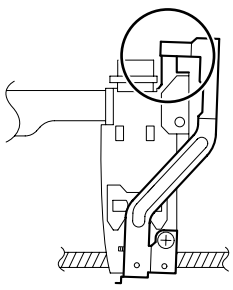


Note: Be careful not to touch the lens and hologram terminal when removing the optical pick-up section.

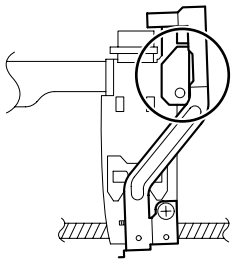
2-11. OPTICAL PICK-UP



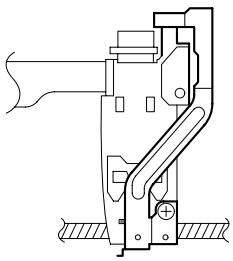
Notes for Assembly



Prevent the end of the leaf spring (sub guide) from being in contact with the OP slide base.



Prevent the end of the leaf spring (sub guide) from being in contact with the OP slide base.



There is space at the end of the leaf spring (sub guide) to avoid contact with the slide.

SECTION 3
DIAGNOSIS FUNCTION

Description of the Diagnostics function:

1. Setting the Diag display mode

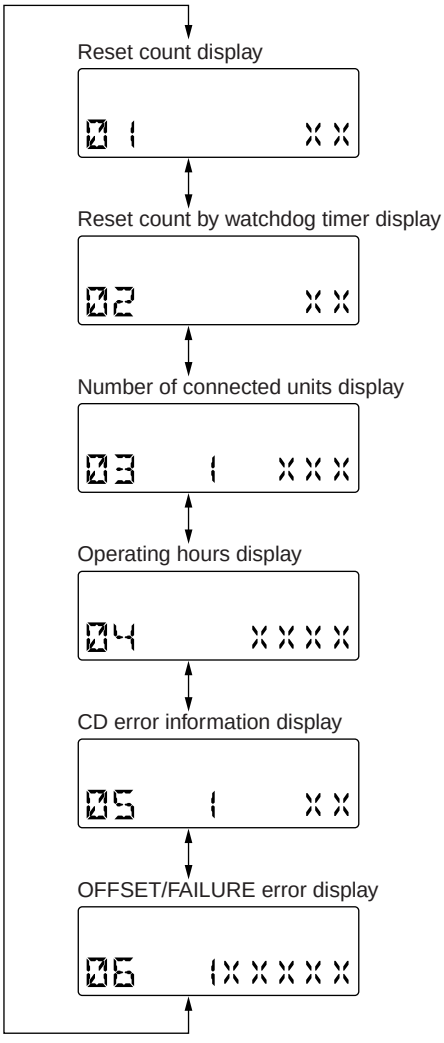
With the power off, press the [4/SHUF] button, [5] button, and [4/SHUF] button on the set body or the remote control (for more than 2 seconds) in turn.

2. Canceling the Diag display mode

During the Diag function mode, press the [OFF] button.

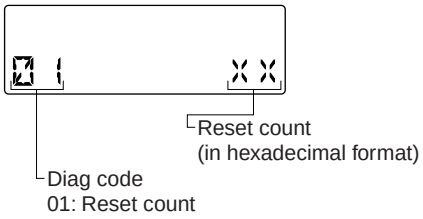
3. Initial display in the Diag display mode.

Just when the Diag mode is entered, “reset count” is displayed. The display mode is switched by each rotation of [SEEK +/▶▶ ▶▶|] or [SEEK –/|◀◀ ◀◀] buttons.

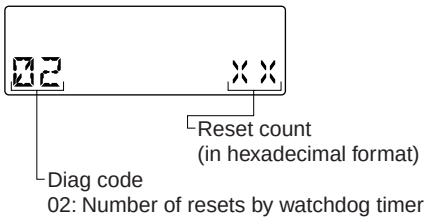


4. Contents of each display mode

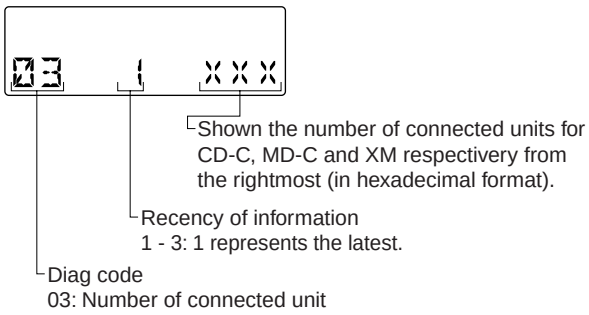
4-1. Reset count display mode



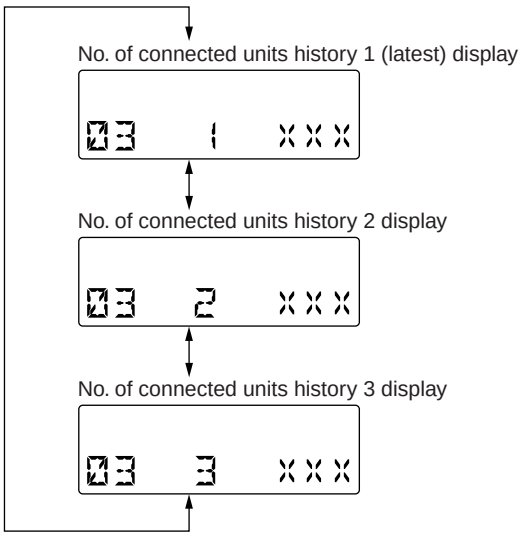
4-2. Reset count by watchdog timer display mode



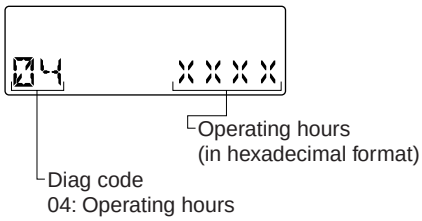
4-3. Number of connected units display mode


03 1 XXX
Shown the number of connected units for CD-C, MD-C and XM respectivery from the rightmost (in hexadecimal format).
Recency of information
1 - 3: 1 represents the latest.
Diag code
03: Number of connected unit

The display mode is switched by each rotation of [ALBM +] or [ALBM −] buttons during the number of connected units display mode.

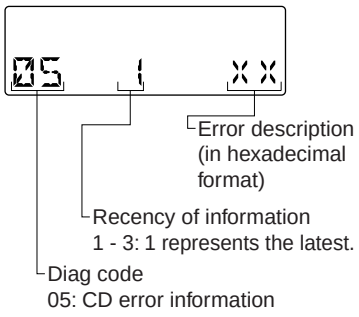

No. of connected units history 1 (latest) display
03 1 XXX
No. of connected units history 2 display
03 2 XXX
No. of connected units history 3 display
03 3 XXX

4-4. Operating hours display mode



4-5. CD error information display mode

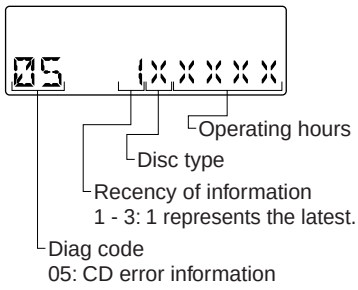
4-5-1. Error description



Error information

Indication	Description
1X	SERVO ERROR
3X	LOADING ERROR
4X	TRACK JUMP
5X	TEXT ERROR
FX	MECHA ERROR

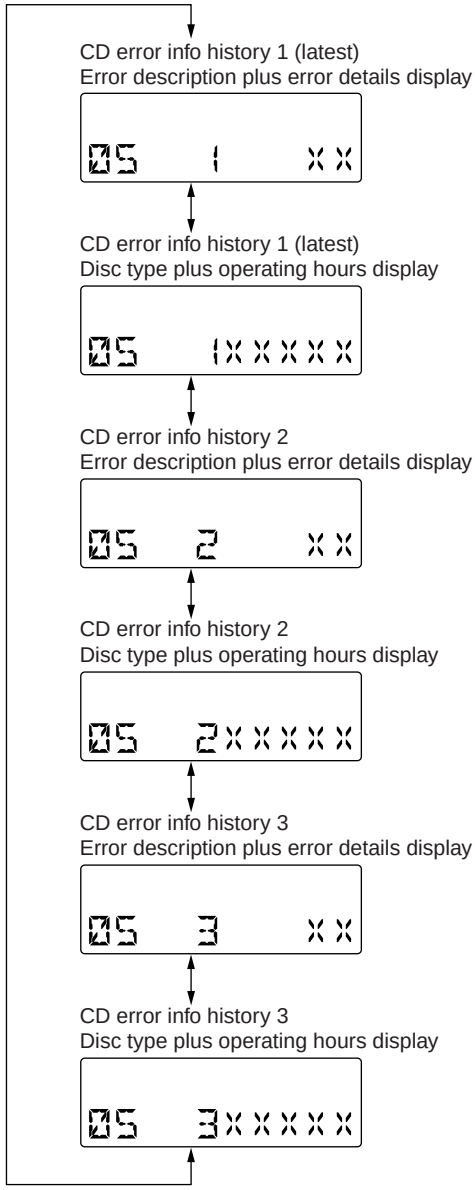
4-5-2. Disc type and operating hours



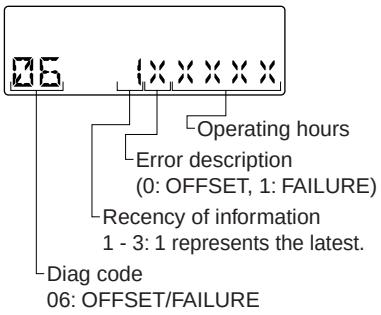
Disc type

Indication	Disc type
0	MP3
1	WMA
2	AAC
3	ATRAC
8	CD-DA
F	UNKNOWN

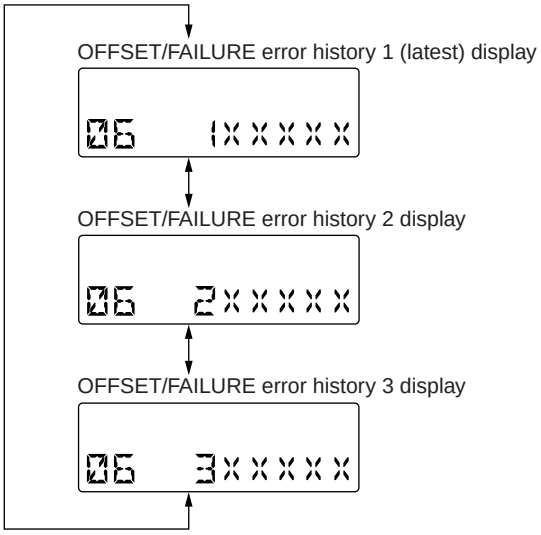
The display mode is switched by each rotation of [ALBM +] or [ALBM −] buttons during the CD error information display mode.


CD error info history 1 (latest)
Error description plus error details display
05 1 XX
CD error info history 1 (latest)
Disc type plus operating hours display
05 1XXXXX
CD error info history 2
Error description plus error details display
05 2 XX
CD error info history 2
Disc type plus operating hours display
05 2XXXXX
CD error info history 3
Error description plus error details display
05 3 XX
CD error info history 3
Disc type plus operating hours display
05 3XXXXX

4-6. OFFSET/FAILURE error display mode

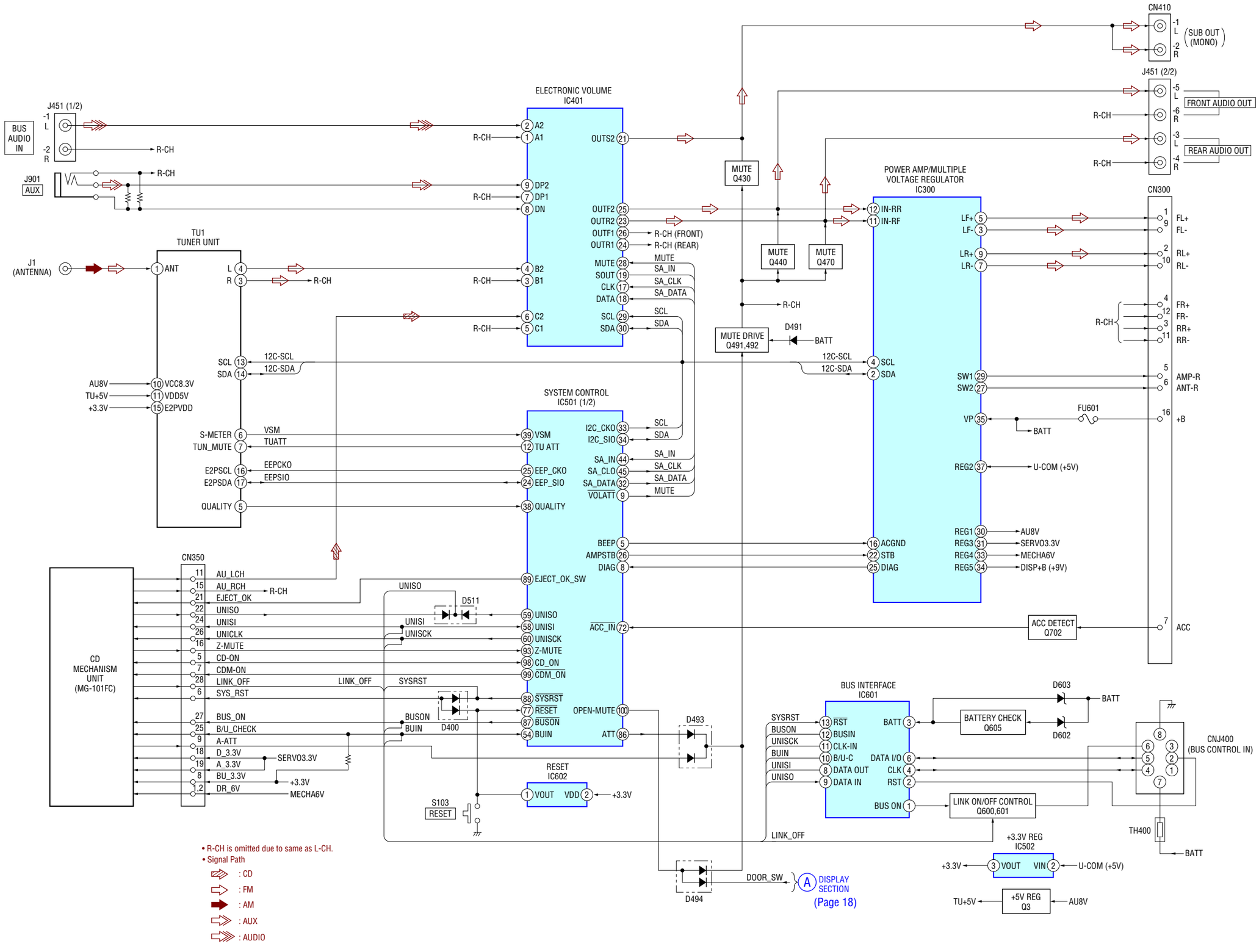


The display mode is switched by each rotation of [ALBM +] or [ALBM -] buttons during the OFFSET/FAILURE error display mode.

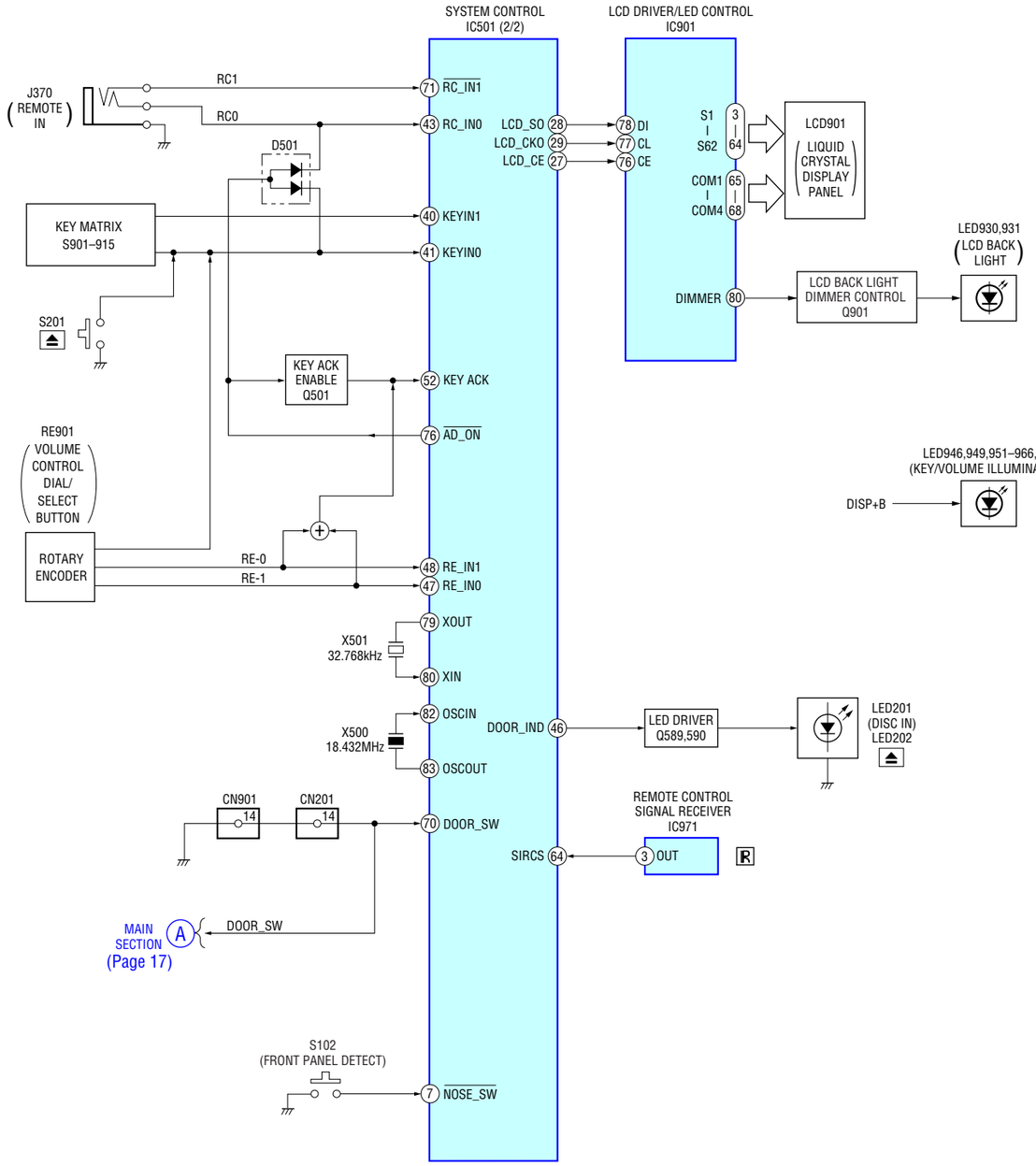


SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM — MAIN SECTION —



4-2. BLOCK DIAGRAM — DISPLAY SECTION —



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

for schematic diagram:

Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  < > : CD
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
  ⇨ : FM
  ➡ : AM
  ⇨ : AUDIO
  ⇨ : AUX

for printed wiring boards:

Note:

- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

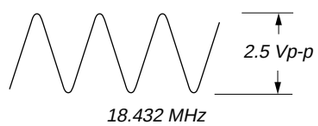
• Waveforms

— MAIN Board —

① IC501 ⑲ (XOUT)

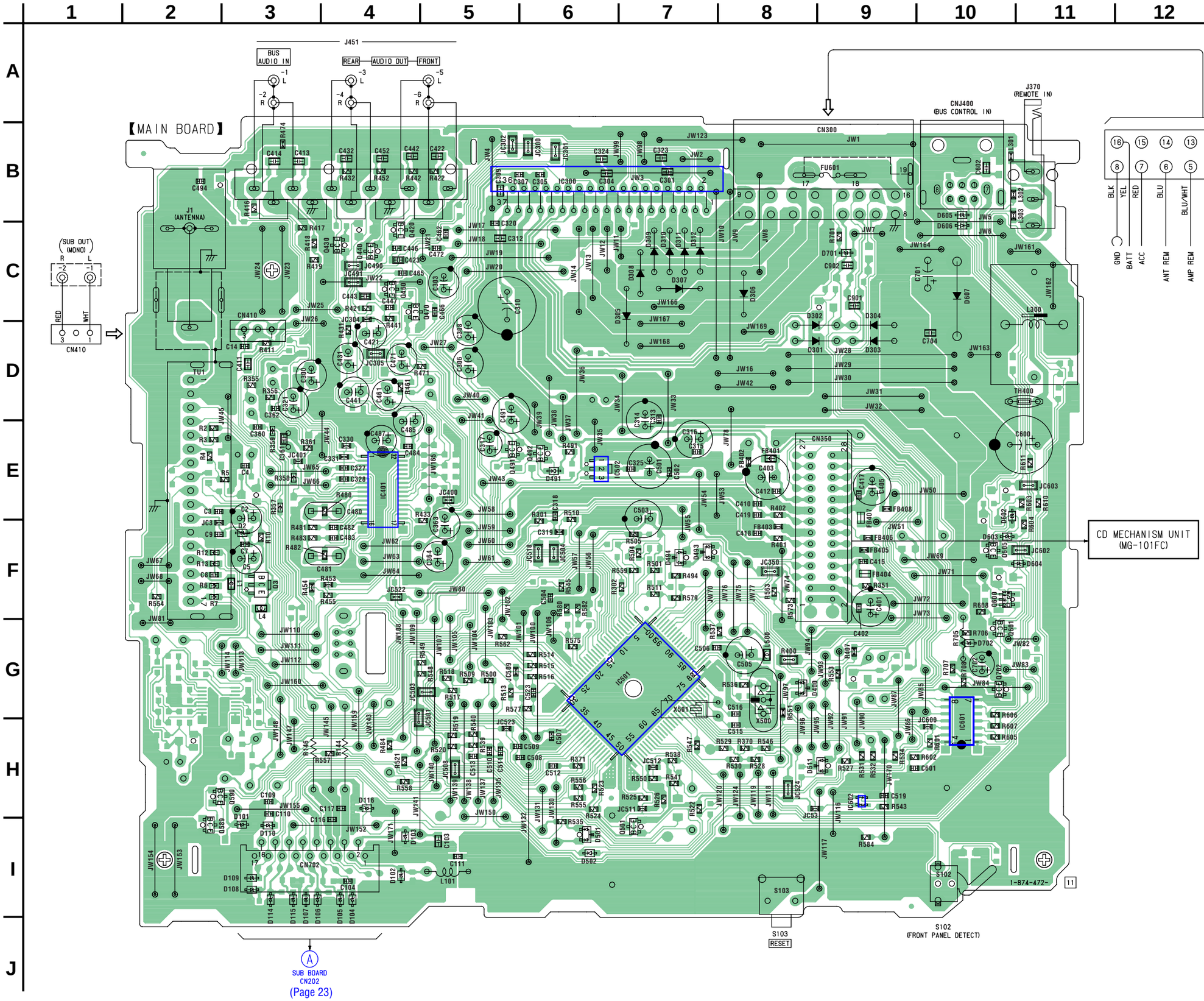
1 V/DIV, 50 nsec/DIV

② IC501 ㉓ (OSCOUT)



1 V/DIV, 50 nsec/DIV

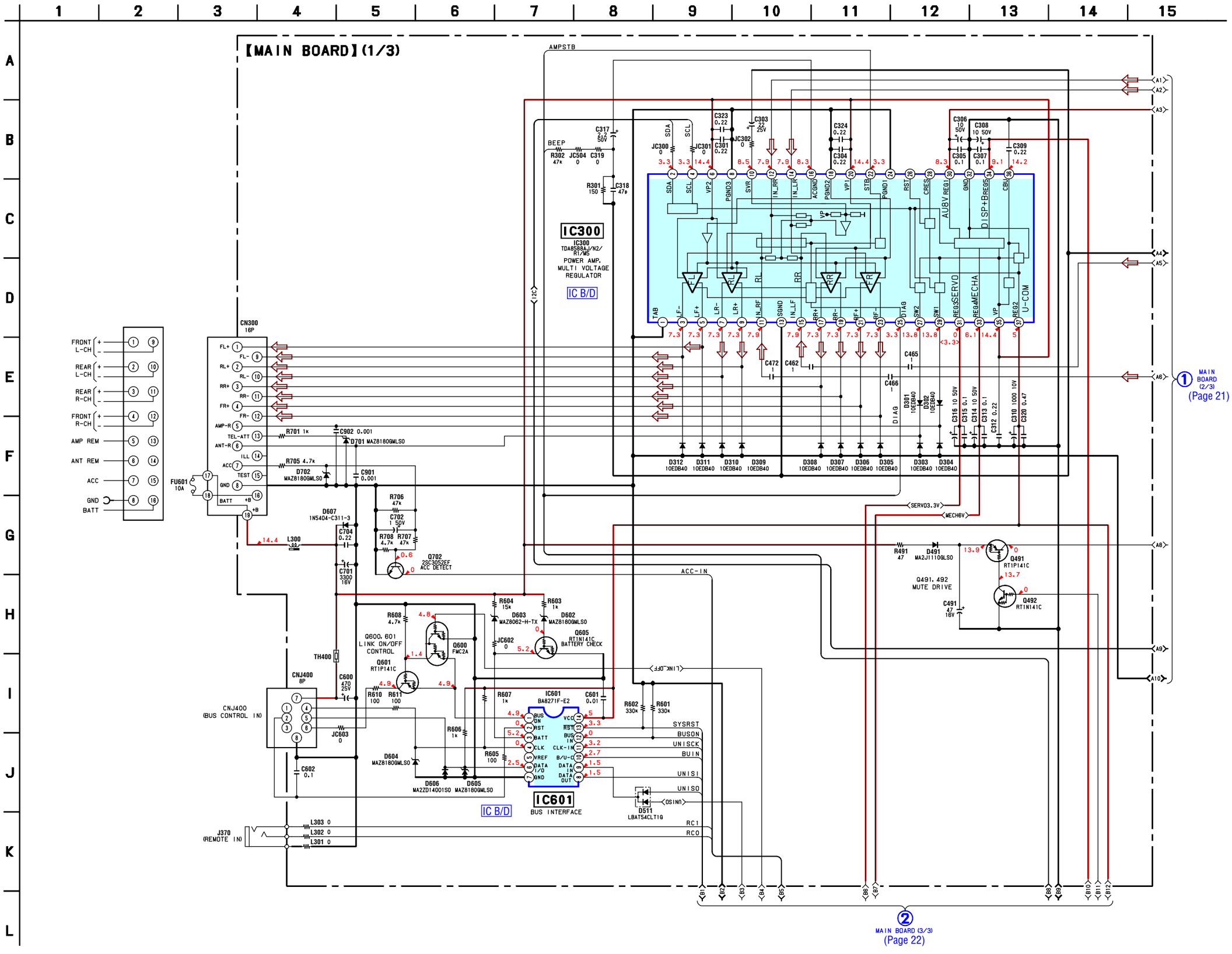
4-3. PRINTED WIRING BOARD — MAIN SECTION — : Uses unleaded solder.


【MAIN BOARD】
J451
BUS AUDIO IN
REAR AUDIO OUT FRONT
J1 (ANTENNA)
(SUB OUT (MONO))
CN410
CN300
CNJ400 (BUS CONTROL IN)
J370 (REMOTE IN)
GND BATT ACC ANT REM AMP REM FRONT R-CH (+) FRONT R-CH (-) REAR R-CH (+) REAR R-CH (-) REAR L-CH (+) REAR L-CH (-) FRONT L-CH (+) FRONT L-CH (-)
BLK YEL RED BLU BLU/WHT GRY GRY/BLK VIO VIO/BLK GRN GRN/BLK WHT WHT/BLK
CD MECHANISM UNIT (MG-101FC)
S102 (FRONT PANEL DETECT)
S103 RESET
SUB BOARD CN202
(Page 23)
1-874-472-

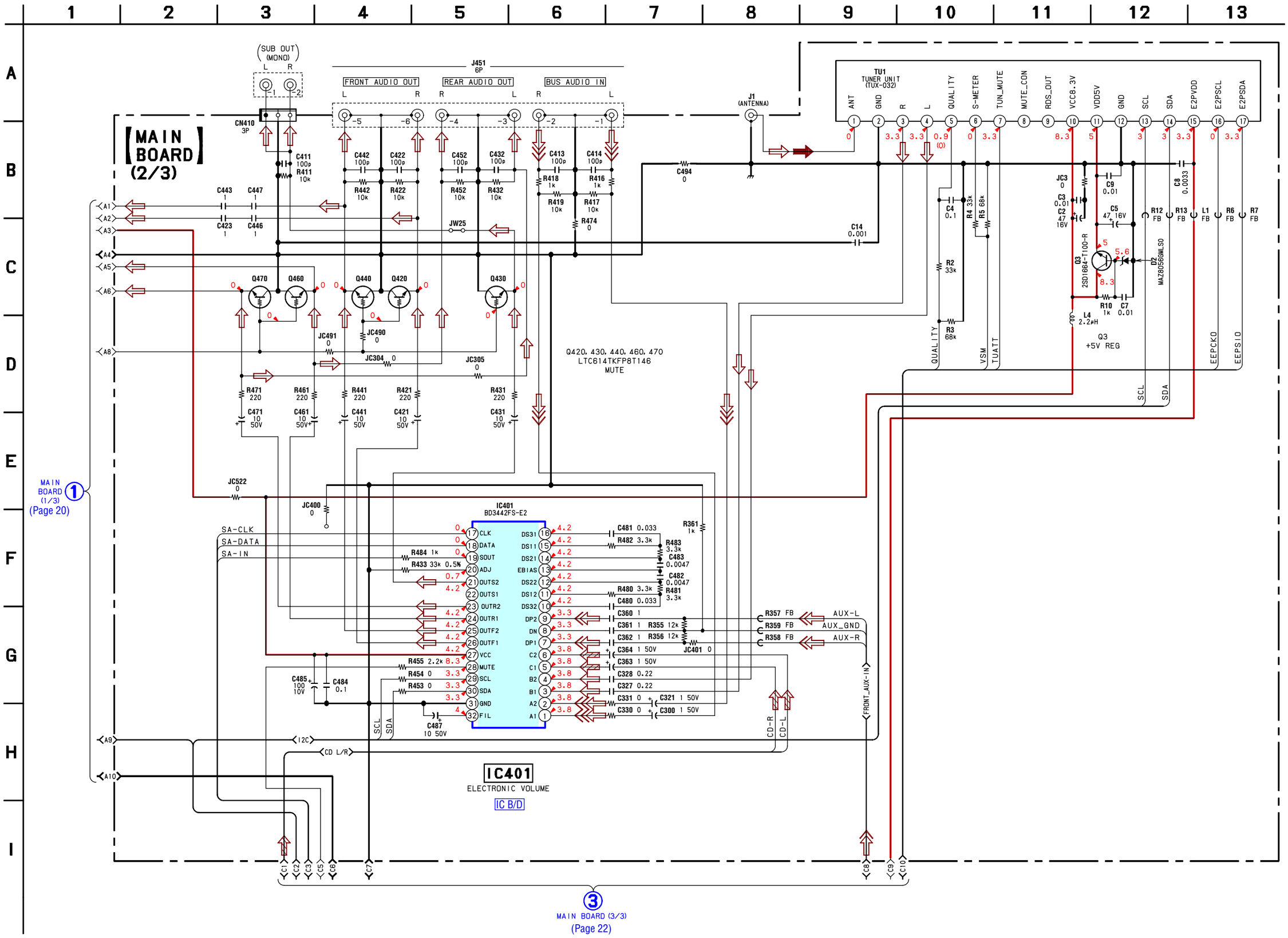
- **Semiconductor Location**

Ref. No.	Location
D2	F-3
D101	I-3
D102	I-4
D103	I-4
D104	I-4
D105	I-4
D106	I-3
D107	I-3
D108	I-3
D109	I-3
D110	I-3
D114	I-3
D115	I-3
D116	H-4
D301	D-9
D302	D-9
D303	D-9
D304	D-9
D305	C-7
D306	C-8
D307	C-7
D308	C-7
D309	C-7
D310	C-7
D311	C-7
D312	C-7
D400	G-8
D491	E-6
D493	F-7
D494	F-7
D501	I-6
D502	I-6
D511	H-9
D602	E-10
D603	F-10
D604	F-11
D605	B-10
D606	C-10
D607	C-10
D701	C-9
D702	G-10
IC300	B-6
IC401	E-4
IC501	G-7
IC502	E-6
IC601	H-10
IC602	H-9
Q3	F-3
Q420	C-4
Q430	C-4
Q440	C-4
Q460	C-4
Q470	C-4
Q491	E-5
Q492	E-6
Q501	I-7
Q589	I-2
Q590	H-3
Q600	F-10
Q601	G-10
Q605	F-10
Q702	G-10

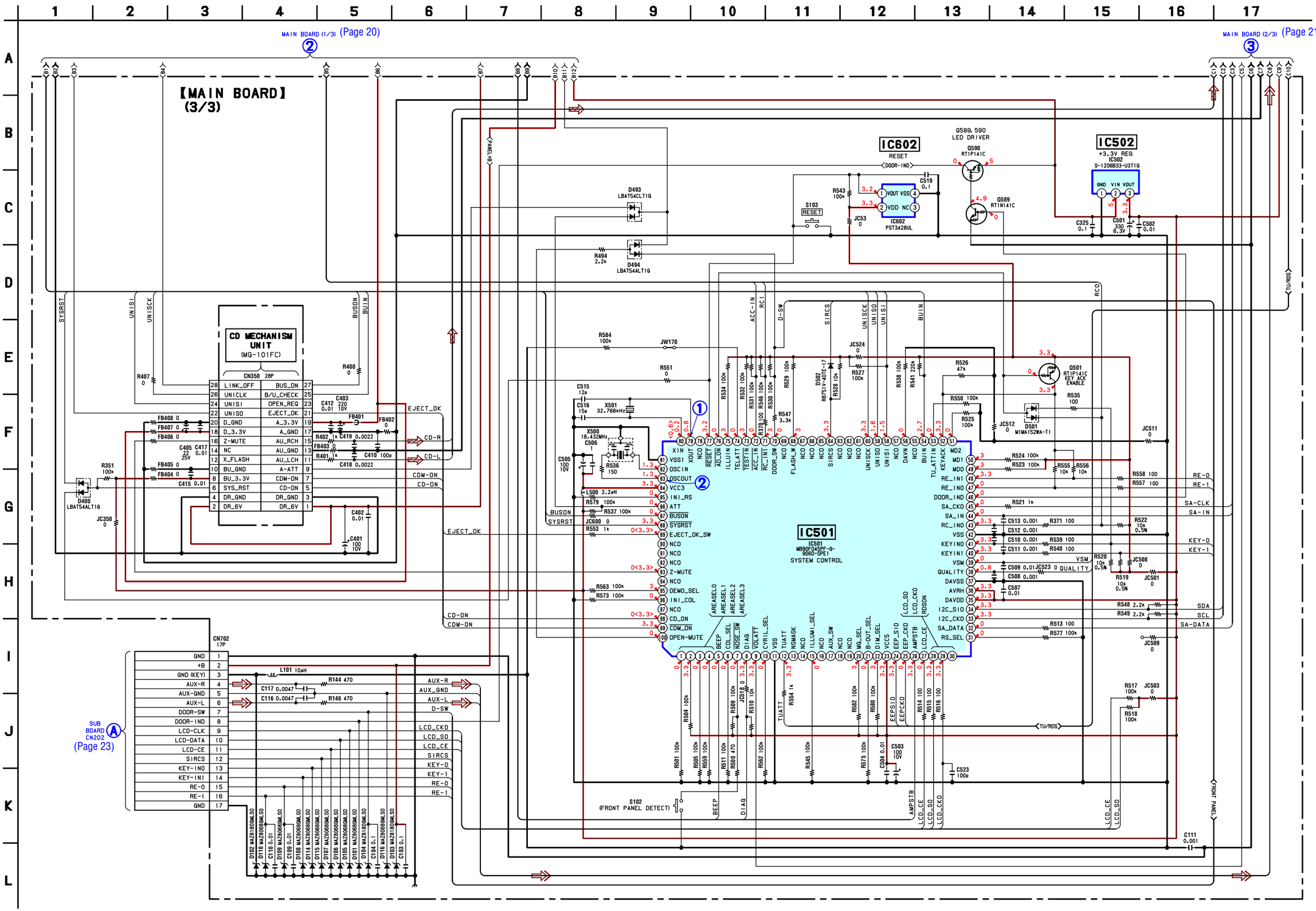
4-4. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) — • Refer to page 26 for IC Block Diagrams.



4-5. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) — • Refer to page 26 for IC Block Diagrams.

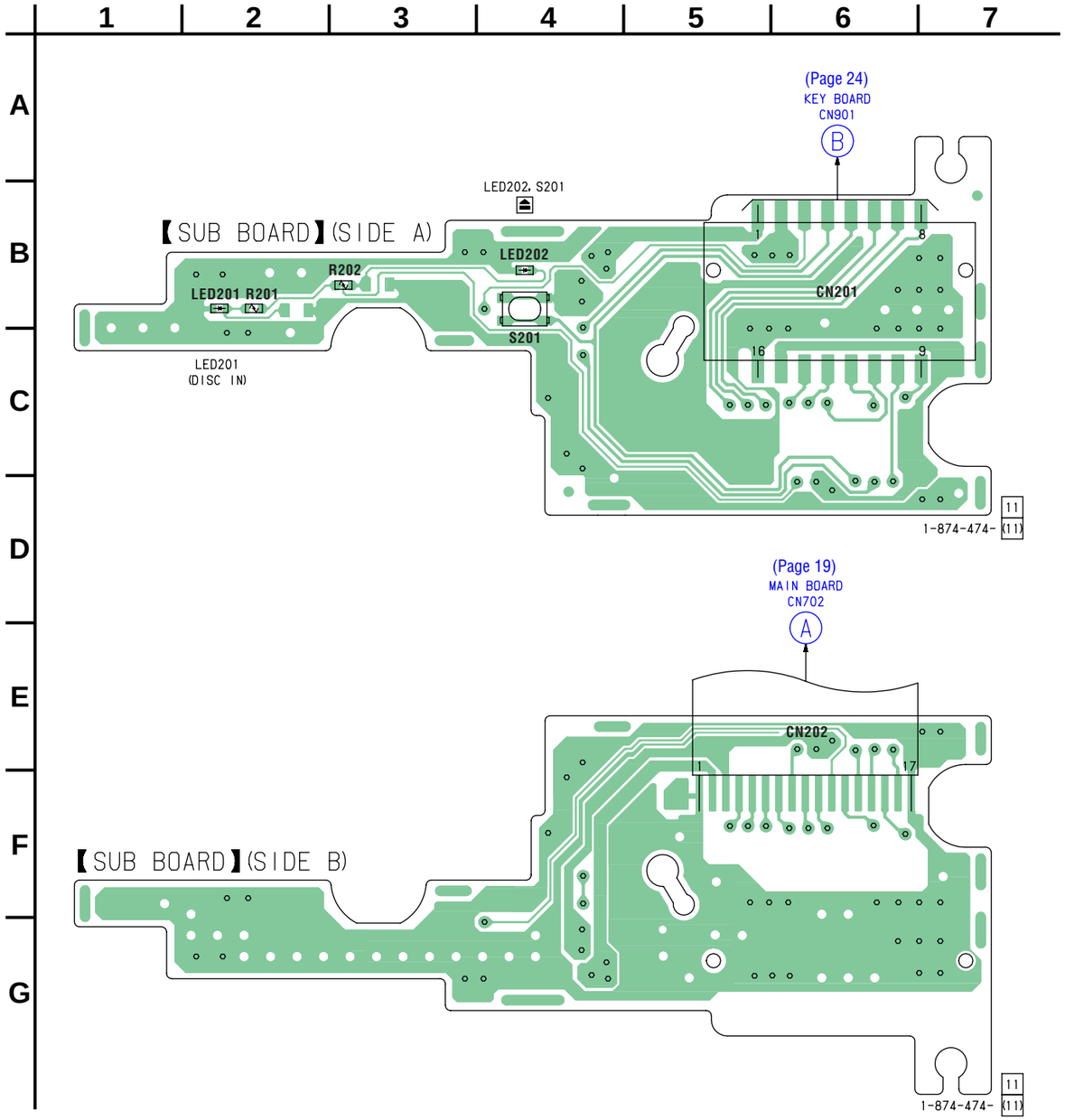


4-6. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) — • Refer to page 18 for Waveforms and page 27 for IC Pin Description.

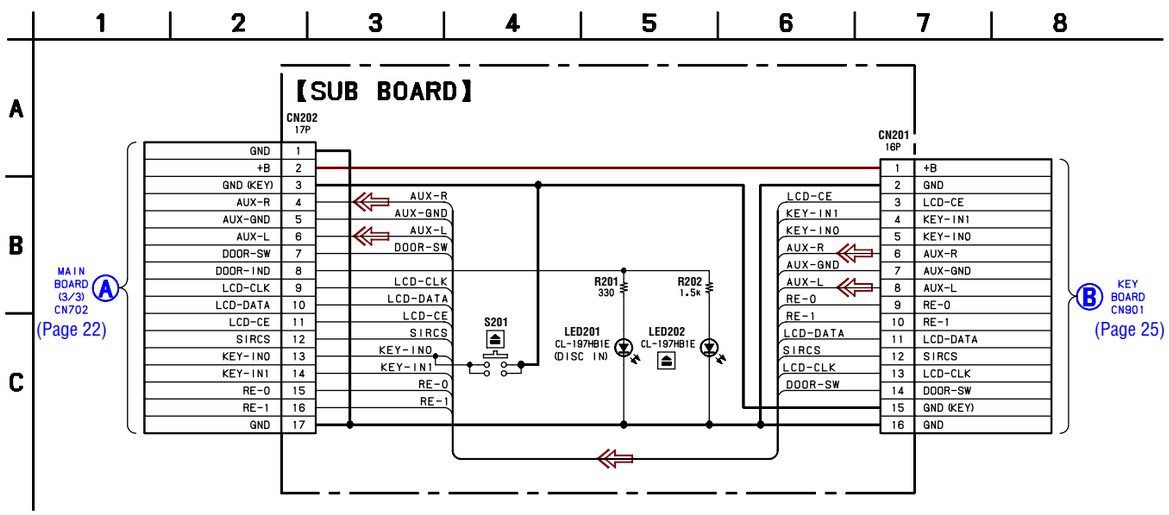


4-7. PRINTED WIRING BOARD — SUB SECTION —

: Uses unleaded solder.

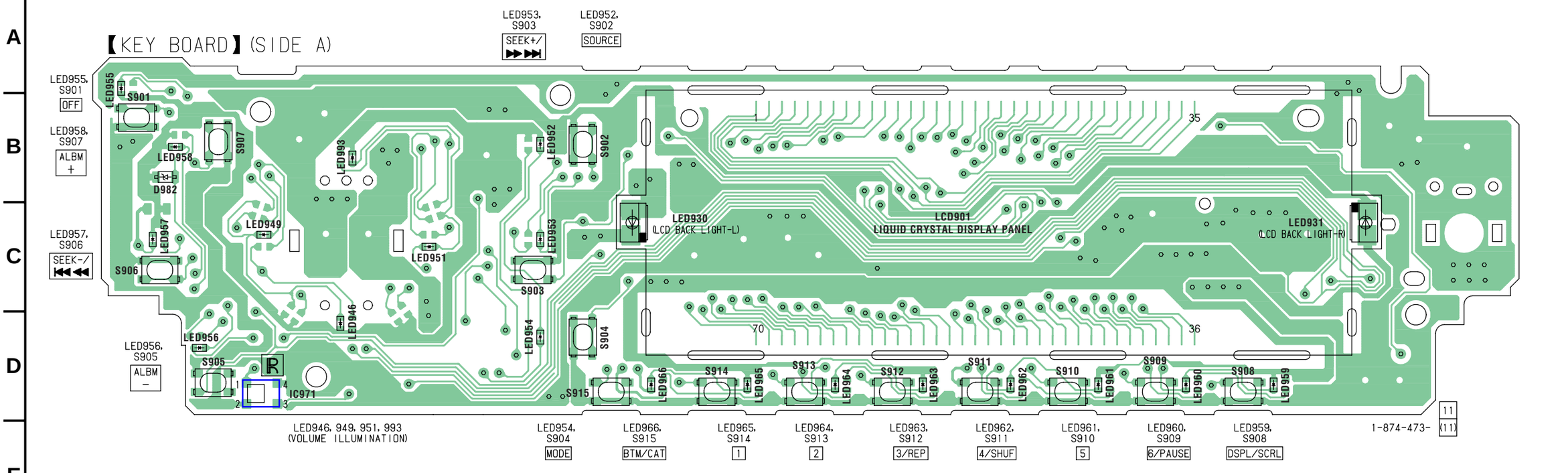


4-8. SCHEMATIC DIAGRAM — SUB SECTION —

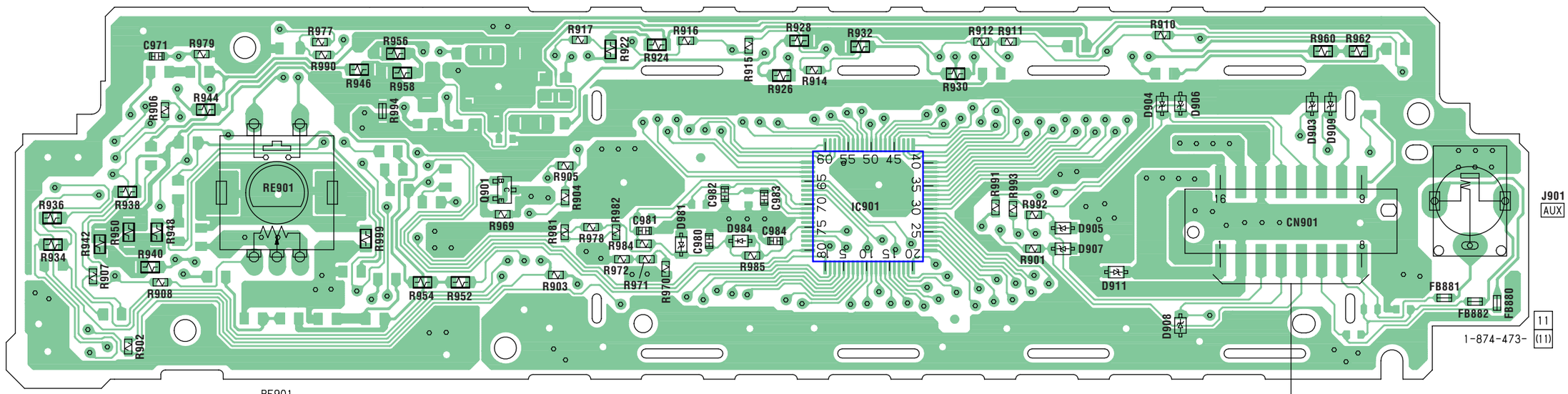


4-9. PRINTED WIRING BOARD — PANEL SECTION — : Uses unleaded solder.

【KEY BOARD】(SIDE A)



【KEY BOARD】(SIDE B)



RE901
(VOLUME CONTROL DIAL/ SELECT BUTTON)

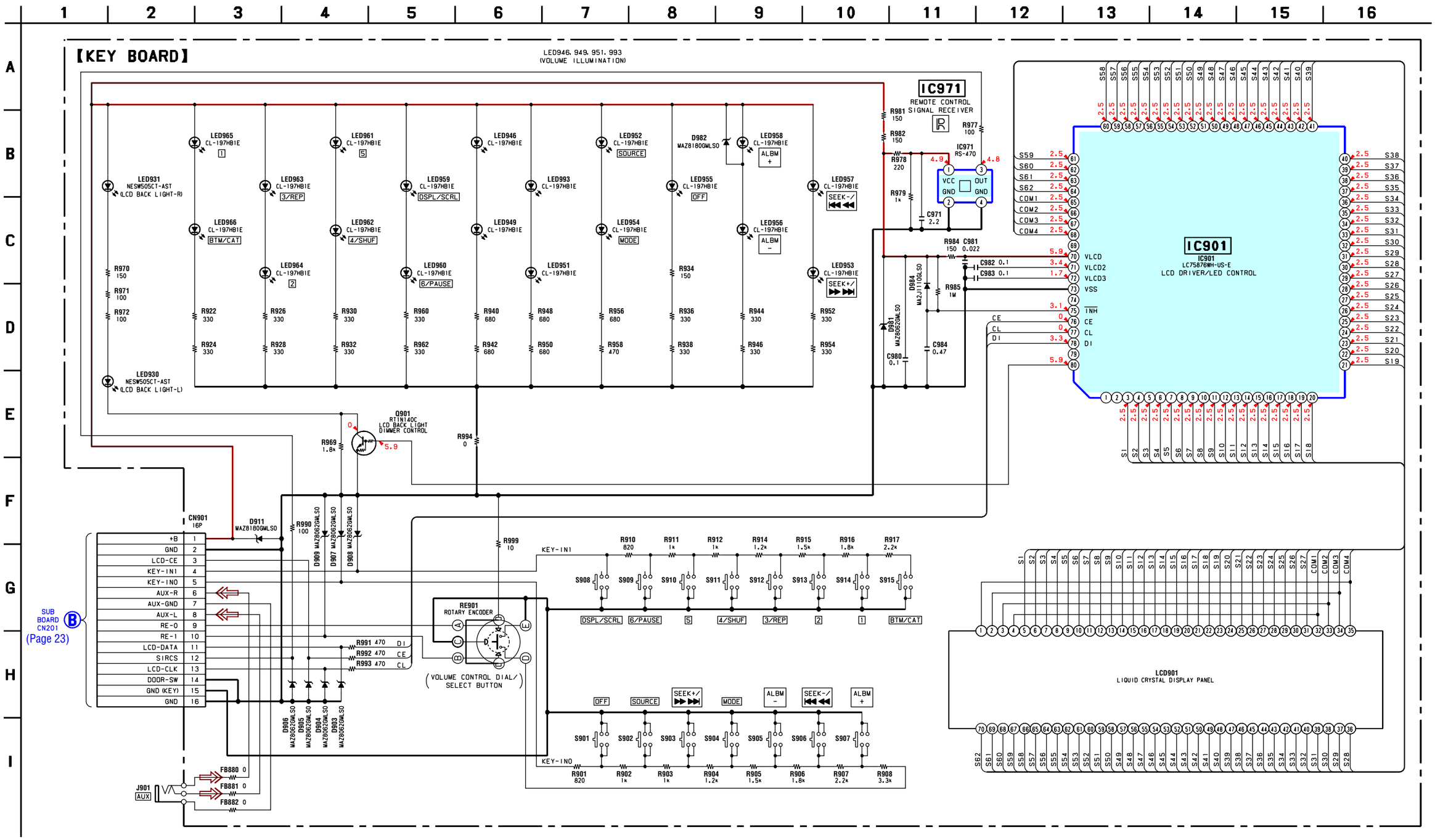
B
SUB BOARD CN201
(Page 23)

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
(D903)	F-12	(D911)	H-11	LED930	C-6	LED954	D-5	LED961	D-10
(D904)	F-11	(D981)	G-7	LED931	C-13	LED955	A-1	LED962	D-10
(D905)	G-10	D982	B-2	LED946	D-3	LED956	D-2	LED963	D-9
(D906)	F-11	(D984)	G-7	LED949	C-3	LED957	C-2	LED964	D-8
(D907)	G-10			LED951	C-4	LED958	B-2	LED965	D-7
(D908)	H-11	(IC901)	G-9	LED952	B-5	LED959	D-12	LED966	D-6
(D909)	F-12	IC971	D-3	LED953	C-5	LED960	D-11	LED993	B-3

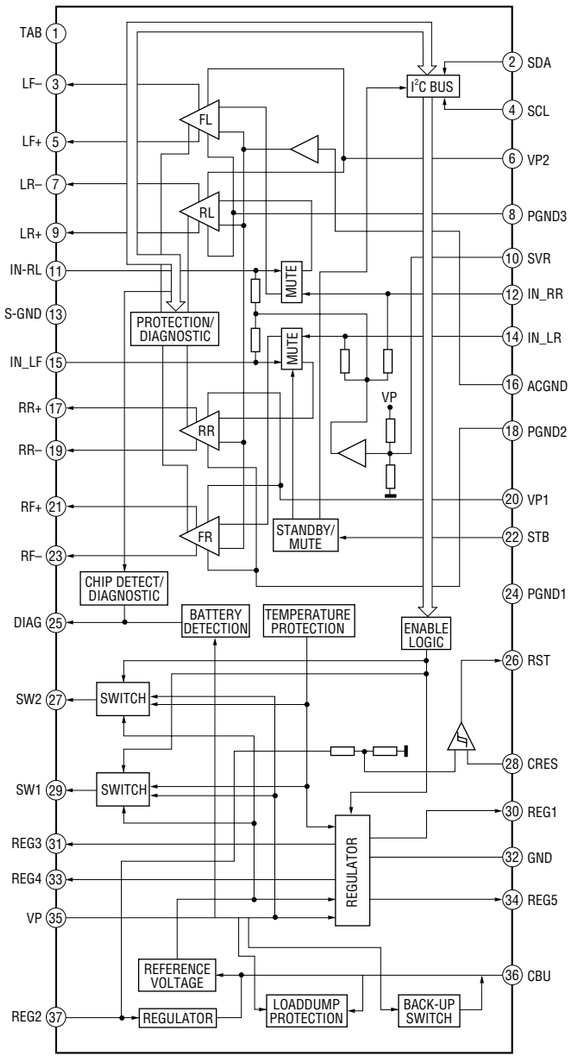
( ): SIDE B

4-10. SCHEMATIC DIAGRAM — PANEL SECTION —

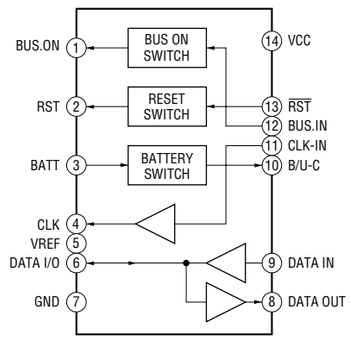


• **IC Block Diagrams**

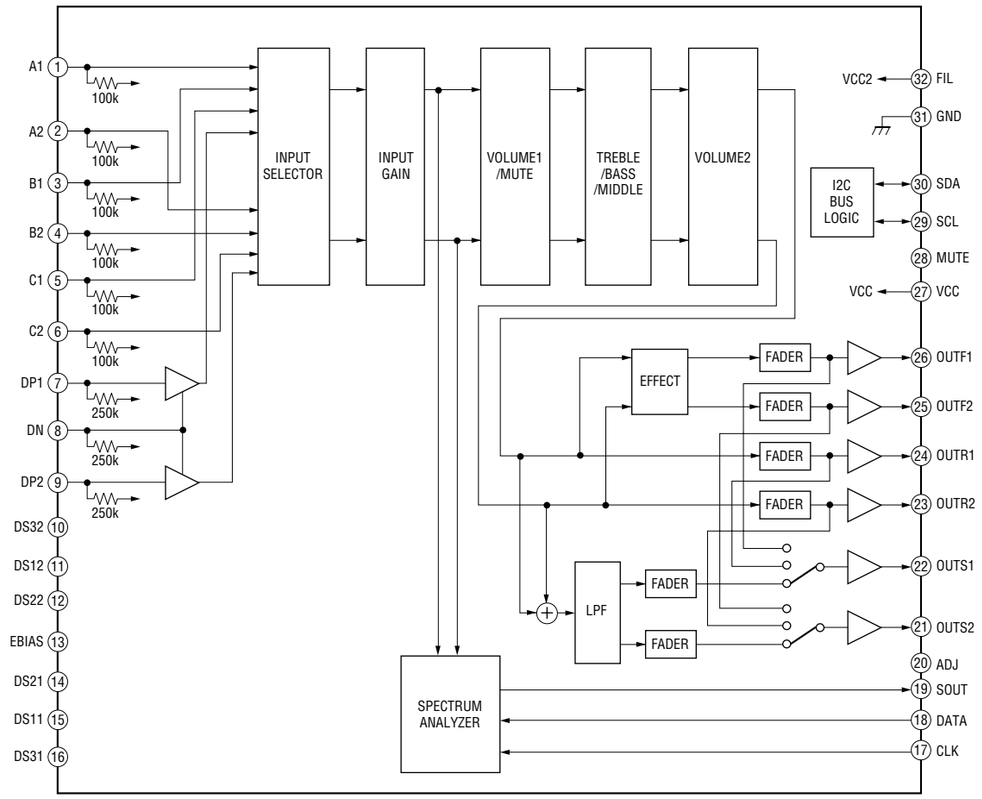
IC300 TDA8588AJ/N2/R1/M5 (MAIN BOARD (1/3))



IC601 BA8271F-E2 (MAIN BOARD (1/3))



IC401 BD3442FS-E2 (MAIN BOARD (2/3))



• IC Pin Description

IC501 MB90F045PF-G-9060-SPE1 (SYSTEM CONTROL) (MAIN BOARD (3/3))

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL0	I	Destination setting pin (Fixed at L in this set)
2	AREASEL1	I	Destination setting pin (Fixed at H in this set)
3	AREASEL2	I	Destination setting pin (Fixed at L in this set)
4	AREASEL3	I	Destination setting pin (Fixed at L in this set)
5	BEEP	O	Beep signal output to power amp IC.
6	COL_SEL	I	Key illumination 2 colors select signal input (L: 1 color)
7	$\overline{\text{NOSE\_SW}}$	I	Front panel detach detection signal input (L: with panel, H: without panel)
8	DIAG	I	Status signal input from power amp IC.
9	$\overline{\text{VOLATT}}$	O	Attenuator control signal output to electronic volume IC.
10	CYRIL_SEL	I	CYRIL select signal input (L: non CYRIL)
11	VSS	—	Ground
12	TUATT	O	Tuner mute control signal output
13	NSMASK	O	Noise mask signal output (Not used in this set)
14	NCO	O	Not used. (Open)
15	ILLUMI_SEL	I	Illumination voltage setting pin (L: illumination power supply 9 V)
16	NCO	O	Not used. (Open)
17	AUX_SW	O	Not used. (Open)
18, 19	NCO	O	Not used. (Open)
20	MG_SEL	I	Mechanism deck select signal input (H: MG-101FC)
21	B-OUT_SEL	I	Black out select signal input (L: non black out)
22	DIM_SEL	I	Dimmer select signal input (H: non auto dimmer)
23	VCC5	—	Power supply pin (+3.3 V)
24	EEP_SIO	I/O	Serial data signal input/output for EEPROM communication.
25	EEP_CKO	O	Serial clock signal output for EEPROM communication.
26	AMPSTB	O	Standby signal output to power amp IC.
27	LCD_CE	O	Chip enable signal output to LCD drive IC.
28	LCD_SO	O	Serial data signal output to LCD drive IC.
29	LCD_CKO	O	Serial clock signal output to LCD drive IC.
30	RDSON	O	RDS ON signal output (Not used in this set)
31	RS_SEL	I	Rear/sub switchable select signal input (L: non rear/sub switchable)
32	SA_DATA	O	Data output for electronic volume IC spectrum analyzer.
33	I2C_CKO	O	I2C bus serial clock signal output
34	I2C_SIO	I/O	I2C bus serial data signal input/output
35	DAVDD	—	Power supply pin for A/D converter. (+3.3 V)
36	AVRH	—	External reference power supply pin for A/D converter. (+3.3 V)
37	DAVSS	—	Ground for A/D converter.
38	QUALITY	I	Noise detection signal input
39	VSM	I	S meter voltage detection signal input
40	KEYIN1	I	Key signal input 1
41	KEYIN0	I	Key signal input 0
42	VSS	—	Ground
43	RC_IN0	I	Rotary commander key signal input
44	SA_IN	I	Spectrum analyzer signal input
45	SA_CKO	O	Spectrum analyzer clock signal output
46	DOOR_IND	O	DISC IN indicator LED control signal output
47	RE_IN0	I	Rotary encoder signal input 0
48	RE_IN1	I	Rotary encoder signal input 1
49, 50	MD0, MD1	I	Signal input for operation mode designation. (Fixed at H in this set)

Pin No.	Pin Name	I/O	Pin Description
51	MD2	I	Signal input for operation mode designation. (Fixed at L in this set)
52	KEYACK	I	Key acknowledge detection signal input
53	TU_ATTIN	I	Tuner mute zero cross detection signal input (Fixed at L in this set)
54	BUIN	I	Backup power supply detection signal input
55	NCO	O	Not used. (Open)
56	DAVN	I	RDS data block synchronized detection signal input from RDS receiver IC. (Fixed at L in this set)
57	NCO	O	Not used. (Open)
58	UNISI	I	SONY-BUS data signal input
59	UNISO	O	SONY-BUS data signal output
60	UNISCK	O	SONY-BUS clock signal output
61 to 63	NCO	O	Not used. (Open)
64	SIRCS	I	Remote control signal input
65 to 67	NCO	O	Not used. (Open)
68	FLASH_W	I	Memory mode select signal input (Fixed at H in this set)
69	NCO	O	Not used. (Open)
70	DOOR_SW	I	Front panel open/close detection signal input
71	$\overline{\text{RC\_IN1}}$	I	Rotary commander shift key signal input
72	$\overline{\text{ACC\_IN}}$	I	Accessory power supply detection signal input
73	$\overline{\text{TESTIN}}$	I	Test mode detection signal input (Fixed at H in this set)
74	TELATT	I	Telephone attenuator detection signal input (Fixed at L in this set)
75	ILLUIN	I	Illumination detection signal input (H: illumination OFF)
76	$\overline{\text{AD\_ON}}$	O	A/D converter power supply control signal output
77	$\overline{\text{RESET}}$	I	Reset signal input
78	NCO	O	Not used. (Open)
79	XOUT	O	Sub-clock signal output (32.768 kHz)
80	XIN	I	Sub-clock signal input (32.768 kHz)
81	VSS1	—	Ground
82	OSCIN	I	Main-clock signal input (18.432 MHz)
83	OSCOUT	O	Main-clock signal output (18.432 MHz)
84	VCC3	—	Power supply pin (+3.3 V)
85	INI_RS	I	Rear/sub initial select signal input (L: initial sub)
86	ATT	O	Audio mute control signal output
87	$\overline{\text{BUSON}}$	O	Bus ON signal output
88	$\overline{\text{SYSRST}}$	O	System reset signal output
89	EJECT_OK_SW	O	Eject OK signal output
90 to 92	NCO	O	Not used. (Open)
93	Z-MUTE	I	CD zero cross mute detection signal input
94	NCO	O	Not used. (Open)
95	DEMOSEL	I	Demo select signal input (H: Demo ON)
96	INI_COL	I	Initial color setting signal input (L: blue)
97	NCO	O	Not used. (Open)
98	CD_ON	I	CD mechanism servo power control request signal input
99	$\overline{\text{CDM\_ON}}$	I	CD mechanism deck power control request signal input
100	OPEN-MUTE	O	Mute signal output at during the AUX source mode. (L: other, H: keep)

SECTION 5
EXPLODED VIEWS

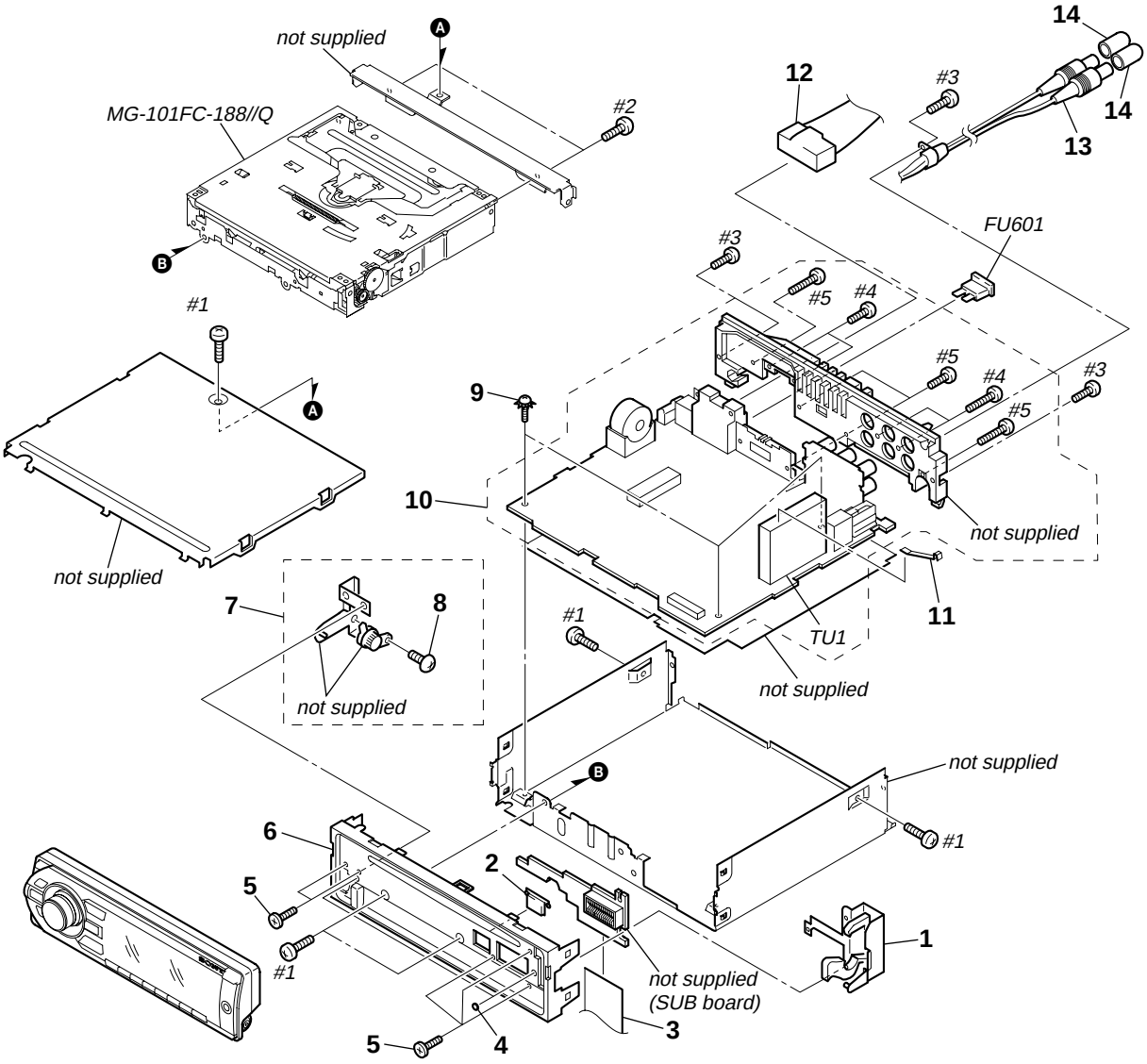
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  CND : Canadian model
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

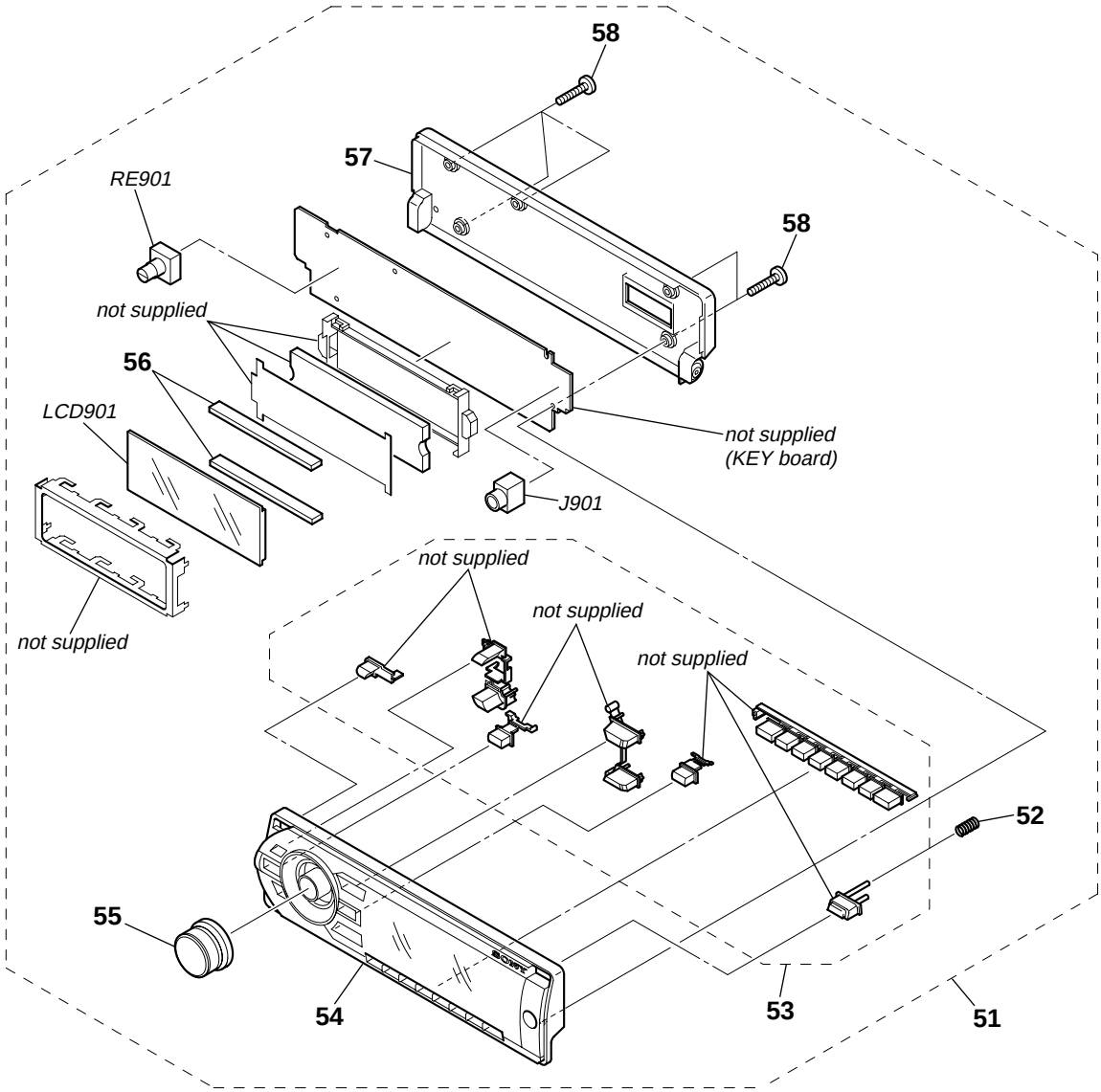
5-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2176-202-1	LOCK ASSY	
2	3-246-441-01	BUTTON (EJECT)	
3	1-834-507-11	CABLE, FLEXIBLE FLAT (17 CORE)	
4	3-260-247-01	CUSHION (SUB PANEL)	
5	3-042-244-01	SCREW (T)	
6	X-2179-173-1	PANEL ASSY, SUB (AUX)	
7	X-3384-203-2	GEAR ASSY	
8	3-713-786-51	SCREW +P 2X3	
9	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
10	A-1309-969-A	MAIN BOARD, COMPLETE (GT52W)	
10	A-1376-240-A	MAIN BOARD, COMPLETE (GT520)	
11	2-021-848-01	SHEET (TU), GROUND	

Ref. No.	Part No.	Description	Remark
12	1-833-974-21	CONNECTION CORD FOR AUTOMOBILE (POWER)	
13	1-833-887-11	CONNECTION CORD (RCA) (SUB OUT (MONO))	
14	3-264-798-01	CAP	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-B	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#4	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
#5	7-685-794-09	SCREW +PTT 2.6X10 (S)	

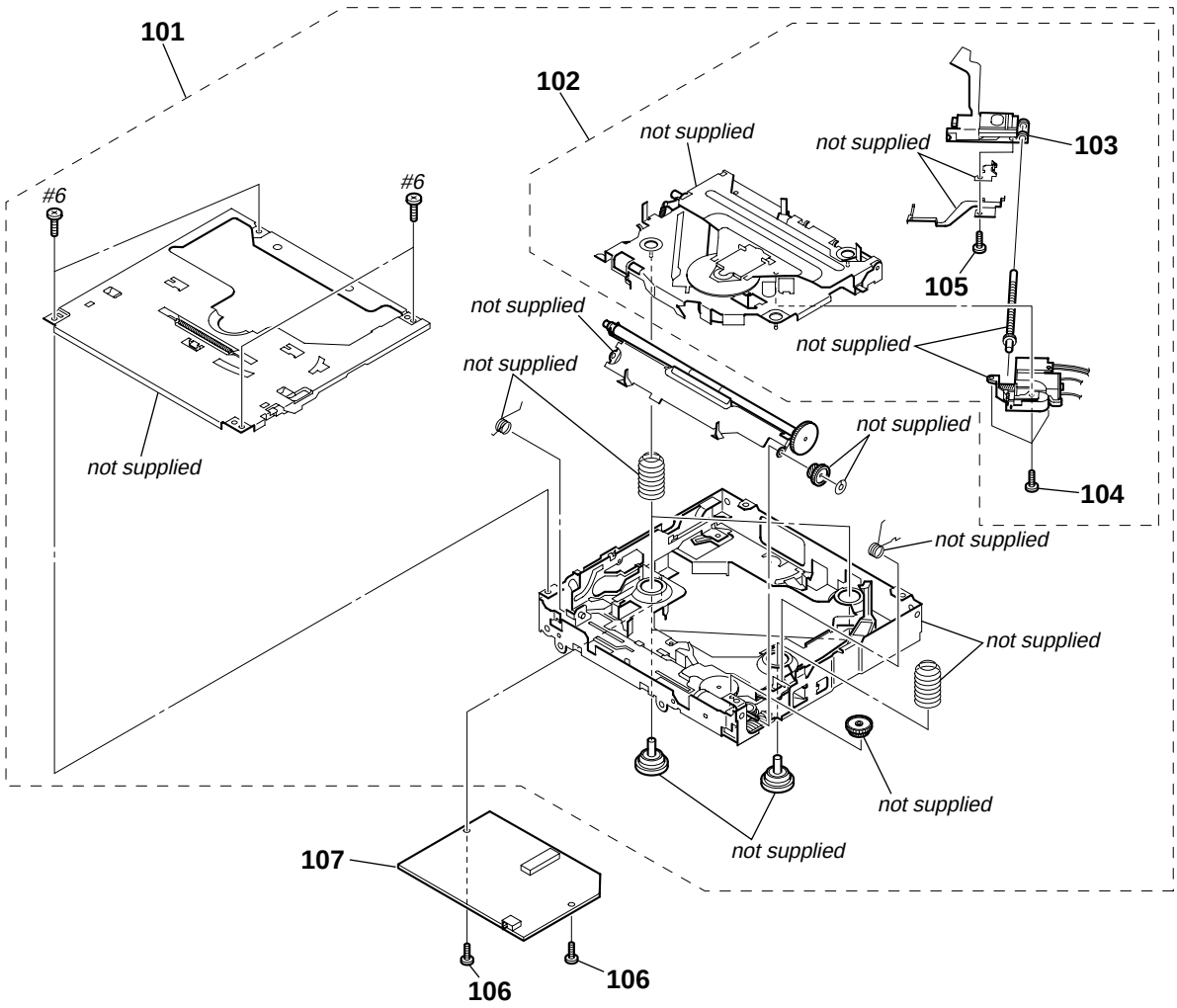
5-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	A-1309-971-A	PANEL OVERALL ASSY, FRONT (GT52W:US)	
51	A-1310-045-A	PANEL OVERALL ASSY, FRONT (GT52W:CND)	
51	A-1310-048-A	PANEL OVERALL ASSY, FRONT (GT520)	
52	3-264-712-01	SPRING (OPEN)	
53	X-2179-192-1	BUTTON ASSY (S)	
54	X-2179-193-1	PANEL (SV) ASSY, FRONT (GT52W)	
54	X-2179-215-1	PANEL (SV) ASSY, FRONT (GT520)	
55	X-2179-191-1	KNOB ASSY (S)	

Ref. No.	Part No.	Description	Remark
56	1-780-563-11	CONDUCTIVE BOARD, CONNECTION	
57	X-2179-174-1	PANEL ASSY, FRONT BACK	
58	3-250-543-21	SCREW (+B P-TITE M2)	
J901	1-820-833-11	JACK, SMALL TYPE (VERTICAL) (AUX)	
LCD901	1-802-520-11	DISPLAY PANEL, LIQUID CRYSTAL	
RE901	1-479-902-21	ENCODER, ROTARY (VOLUME CONTROL DIAL/SELECT BUTTON)	

5-3. CD MECHANISM SECTION (MG-101FC-188//Q)



Ref. No.	Part No.	Description	Remark
101	A-1289-450-A	MECHANICAL BLOCK ASSY (08)	
102	A-1284-705-A	DAXEV08//Q	
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)	
104	2-626-869-01	SCREW (M2X3), SERRATION	
105	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN	
106	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
107	A-1177-362-A	SERVO BOARD, COMPLETE	
#6	7-627-000-08	SCREW, PRECISION +P 1.7X2.2 TYPE 3	

KEY

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-780-563-11	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C971	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C980	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C981	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C982	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
		< CONNECTOR >			
CN901	1-819-783-11	PLUG, CONNECTER 16P			
		< DIODE >			
D903	6-501-738-01	DIODE MAZ8062GMLS0			
D904	6-501-738-01	DIODE MAZ8062GMLS0			
D905	6-501-738-01	DIODE MAZ8062GMLS0			
D906	6-501-738-01	DIODE MAZ8062GMLS0			
D907	6-501-738-01	DIODE MAZ8062GMLS0			
D908	6-501-738-01	DIODE MAZ8062GMLS0			
D909	6-501-738-01	DIODE MAZ8062GMLS0			
D911	6-501-782-01	DIODE MAZ8180GMLS0			
D981	6-501-738-01	DIODE MAZ8062GMLS0			
D982	6-501-782-01	DIODE MAZ8180GMLS0			
D984	6-501-817-01	DIODE MA2J1110GLS0			
		< JUMPER RESISTOR >			
FB880	1-216-864-11	SHORT CHIP	0		
FB881	1-216-864-11	SHORT CHIP	0		
FB882	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC901	6-707-064-01	IC LC75876WH-US-E			
IC971	6-600-629-01	IC RS-470 (IR)			
		< JACK >			
J901	1-820-833-11	JACK, SMALL TYPE (VERTICAL) (AUX)			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-802-520-11	DISPLAY PANEL, LIQUID CRYSTAL			

Ref. No.	Part No.	Description	Remark
		< DIODE >	
LED930	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT-L)	
LED931	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT-R)	
LED946	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)	
LED949	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)	
LED951	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)	
LED952	6-501-547-01	LED CL-197HB1E-D-T (SOURCE)	
LED953	6-501-547-01	LED CL-197HB1E-D-T (SEEK+/▶▶ ▶▶I)	
LED954	6-501-547-01	LED CL-197HB1E-D-T (MODE)	
LED955	6-501-547-01	LED CL-197HB1E-D-T (OFF)	
LED956	6-501-547-01	LED CL-197HB1E-D-T (ALBM –)	
LED957	6-501-547-01	LED CL-197HB1E-D-T (SEEK–/I◀◀ ◀◀)	
LED958	6-501-547-01	LED CL-197HB1E-D-T (ALBM +)	
LED959	6-501-547-01	LED CL-197HB1E-D-T (DSPL/SCRL)	
LED960	6-501-547-01	LED CL-197HB1E-D-T (6/PAUSE)	
LED961	6-501-547-01	LED CL-197HB1E-D-T (5)	
LED962	6-501-547-01	LED CL-197HB1E-D-T (4/SHUF)	
LED963	6-501-547-01	LED CL-197HB1E-D-T (3/REP)	
LED964	6-501-547-01	LED CL-197HB1E-D-T (2)	
LED965	6-501-547-01	LED CL-197HB1E-D-T (1)	
LED966	6-501-547-01	LED CL-197HB1E-D-T (BTM/CAT)	
LED993	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)	
		< TRANSISTOR >	
Q901	8-729-027-44	TRANSISTOR DTC114TKA-T146	
		< RESISTOR >	

R901	1-216-820-11	METAL CHIP	820	5%	1/10W
R902	1-216-821-11	METAL CHIP	1K	5%	1/10W
R903	1-216-821-11	METAL CHIP	1K	5%	1/10W
R904	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R908	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R910	1-216-820-11	METAL CHIP	820	5%	1/10W
R911	1-216-821-11	METAL CHIP	1K	5%	1/10W
R912	1-216-821-11	METAL CHIP	1K	5%	1/10W
R914	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R915	1-216-823-11	METAL CHIP	1.5K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R916	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R917	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R922	1-216-037-00	RES-CHIP	330	5%	1/10W
R924	1-216-037-00	RES-CHIP	330	5%	1/10W
R926	1-216-037-00	RES-CHIP	330	5%	1/10W
R928	1-216-037-00	RES-CHIP	330	5%	1/10W
R930	1-216-037-00	RES-CHIP	330	5%	1/10W
R932	1-216-037-00	RES-CHIP	330	5%	1/10W
R934	1-216-041-00	RES-CHIP	470	5%	1/10W
R936	1-216-037-00	RES-CHIP	330	5%	1/10W
R938	1-216-037-00	RES-CHIP	330	5%	1/10W
R940	1-216-045-00	RES-CHIP	680	5%	1/10W
R942	1-216-045-00	RES-CHIP	680	5%	1/10W
R944	1-216-037-00	RES-CHIP	330	5%	1/10W
R946	1-216-037-00	RES-CHIP	330	5%	1/10W
R948	1-216-045-00	RES-CHIP	680	5%	1/10W
R950	1-216-045-00	RES-CHIP	680	5%	1/10W
R952	1-216-037-00	RES-CHIP	330	5%	1/10W
R954	1-216-037-00	RES-CHIP	330	5%	1/10W
R956	1-216-045-00	RES-CHIP	680	5%	1/10W
R958	1-216-041-00	RES-CHIP	470	5%	1/10W
R960	1-216-037-00	RES-CHIP	330	5%	1/10W
R962	1-216-037-00	RES-CHIP	330	5%	1/10W
R969	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R970	1-216-811-11	METAL CHIP	150	5%	1/10W
R971	1-216-809-11	METAL CHIP	100	5%	1/10W
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-813-11	METAL CHIP	220	5%	1/10W
R979	1-216-821-11	METAL CHIP	1K	5%	1/10W
R981	1-216-811-11	METAL CHIP	150	5%	1/10W
R982	1-216-811-11	METAL CHIP	150	5%	1/10W
R984	1-216-811-11	METAL CHIP	150	5%	1/10W
R985	1-216-857-11	METAL CHIP	1M	5%	1/10W
R990	1-216-809-11	METAL CHIP	100	5%	1/10W
R991	1-216-817-11	METAL CHIP	470	5%	1/10W
R992	1-216-817-11	METAL CHIP	470	5%	1/10W
R993	1-216-817-11	METAL CHIP	470	5%	1/10W
R994	1-216-864-11	SHORT CHIP	0		
R999	1-216-001-00	METAL CHIP	10	5%	1/10W
		< ROTARY ENCODER >			
RE901	1-479-902-21	ENCODER, ROTARY (VOLUME CONTROL DIAL/SELECT BUTTON)			
		< SWITCH >			
S901	1-786-653-21	SWITCH, TACTILE (OFF)			
S902	1-786-653-21	SWITCH, TACTILE (SOURCE)			
S903	1-786-653-21	SWITCH, TACTILE (SEEK+/▶▶ ▶▶I)			
S904	1-786-653-21	SWITCH, TACTILE (MODE)			
S905	1-786-653-21	SWITCH, TACTILE (ALBM –)			
S906	1-786-653-21	SWITCH, TACTILE (SEEK–/I◀◀ ◀◀)			
S907	1-786-653-21	SWITCH, TACTILE (ALBM +)			
S908	1-786-653-21	SWITCH, TACTILE (DSPL/SCRL)			
S909	1-786-653-21	SWITCH, TACTILE (6/PAUSE)			
S910	1-786-653-21	SWITCH, TACTILE (5)			
S911	1-786-653-21	SWITCH, TACTILE (4/SHUF)			
S912	1-786-653-21	SWITCH, TACTILE (3/REP)			

Ref. No.	Part No.	Description			Remark
S913	1-786-653-21	SWITCH, TACTILE (2)			
S914	1-786-653-21	SWITCH, TACTILE (1)			
S915	1-786-653-21	SWITCH, TACTILE (BTM/CAT)			
**********					
	A-1309-969-A	MAIN BOARD, COMPLETE (GT52W)			
	A-1376-240-A	MAIN BOARD, COMPLETE (GT520)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C2	1-126-947-11	ELECT	47uF	20%	35V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C4	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5	1-126-947-11	ELECT	47uF	20%	35V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C9	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C14	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C103	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C104	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C110	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C111	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C116	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C117	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C300	1-126-960-11	ELECT	1uF	20%	50V
C301	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C303	1-128-551-11	ELECT	22uF	20%	63V
C304	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C305	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C306	1-126-964-11	ELECT	10uF	20%	50V
C307	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C310	1-126-926-11	ELECT	1000uF	20%	10V
C312	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C313	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C314	1-124-261-00	ELECT	10uF	20%	50V
C315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C316	1-124-261-00	ELECT	10uF	20%	50V
C317	1-124-257-00	ELECT	2.2uF	20%	50V
C318	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C319	1-216-864-11	SHORT CHIP	0		
C320	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C321	1-126-960-11	ELECT	1uF	20%	50V
C323	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C324	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C325	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C327	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C328	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C330	1-216-864-11	SHORT CHIP	0		
C331	1-216-864-11	SHORT CHIP	0		
C360	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C361	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C362	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C363	1-115-871-11	ELECT	1uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C364	1-115-871-11	ELECT	1uF	20%	50V
C401	1-124-584-00	ELECT	100uF	20%	10V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-126-176-11	ELECT	220uF	20%	10V
C405	1-124-248-00	ELECT	22uF	20%	25V
C410	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C411	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C413	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C414	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C418	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C419	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C421	1-126-964-11	ELECT	10uF	20%	50V
C422	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C423	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C431	1-126-964-11	ELECT	10uF	20%	50V
C432	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C443	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C446	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C447	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C461	1-126-964-11	ELECT	10uF	20%	50V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C465	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C466	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C471	1-126-964-11	ELECT	10uF	20%	50V
C472	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C480	1-136-159-00	FILM	0.033uF	5%	50V
C481	1-136-159-00	FILM	0.033uF	5%	50V
C482	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C483	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C484	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C485	1-104-665-11	ELECT	100uF	20%	25V
C487	1-126-964-11	ELECT	10uF	20%	50V
C491	1-124-589-11	ELECT	47uF	20%	16V
C494	1-216-864-11	SHORT CHIP	0		
C501	1-128-057-11	ELECT	330uF	20%	6.3V
C502	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C503	1-124-584-00	ELECT	100uF	20%	10V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C505	1-124-584-00	ELECT	100uF	20%	10V
C506	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C508	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C509	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C510	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C515	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C516	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C523	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C600	1-126-941-11	ELECT	470uF	20%	25V

Ref. No.	Part No.	Description			Remark
C601	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C701	1-112-302-11	ELECT	3300uF	20%	16V
C702	1-126-160-11	ELECT	1uF	20%	50V
C704	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C901	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C902	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

< CONNECTOR >

CN300	1-774-701-21	PIN, CONNECTOR 16P	
CN350	1-820-611-11	CONNECTOR, BOARD TO BOARD 28P	
* CN410	1-564-506-11	PLUG, CONNECTOR 3P	
* CN702	1-770-524-31	CONNECTOR, FFC/FPC 17P	
CNJ400	1-580-907-41	PLUG, CONNECTOR 8P (BUS CONTROL IN)	

< DIODE >

D2	6-501-734-01	DIODE	MAZ8056GMLS0
D101	6-501-743-01	DIODE	MAZ8068GMLS0
D102	6-501-782-01	DIODE	MAZ8180GMLS0
D103	6-501-782-01	DIODE	MAZ8180GMLS0
D104	6-501-782-01	DIODE	MAZ8180GMLS0
D105	6-501-743-01	DIODE	MAZ8068GMLS0
D106	6-501-743-01	DIODE	MAZ8068GMLS0
D107	6-501-743-01	DIODE	MAZ8068GMLS0
D108	6-501-743-01	DIODE	MAZ8068GMLS0
D109	6-501-743-01	DIODE	MAZ8068GMLS0
D110	6-501-743-01	DIODE	MAZ8068GMLS0
D114	6-501-743-01	DIODE	MAZ8068GMLS0
D115	6-501-743-01	DIODE	MAZ8068GMLS0
D116	6-501-743-01	DIODE	MAZ8068GMLS0
D301	6-500-522-01	DIODE	10EDB40-TA1B2
D302	6-500-522-01	DIODE	10EDB40-TA1B2
D303	6-500-522-01	DIODE	10EDB40-TA1B2
D304	6-500-522-01	DIODE	10EDB40-TA1B2
D305	6-500-522-01	DIODE	10EDB40-TA1B2
D306	6-500-522-01	DIODE	10EDB40-TA1B2
D307	6-500-522-01	DIODE	10EDB40-TA1B2
D308	6-500-522-01	DIODE	10EDB40-TA1B2
D309	6-500-522-01	DIODE	10EDB40-TA1B2
D310	6-500-522-01	DIODE	10EDB40-TA1B2
D311	6-500-522-01	DIODE	10EDB40-TA1B2
D312	6-500-522-01	DIODE	10EDB40-TA1B2
D400	6-501-656-01	DIODE	LBAT54ALT1G
D491	6-501-817-01	DIODE	MA2J1110GLS0
D493	6-501-654-01	DIODE	LBAT54CLT1G
D494	6-501-656-01	DIODE	LBAT54ALT1G
D501	8-719-050-37	DIODE	M1MA152WA-T1
D502	8-719-060-48	DIODE	RB751V-40TE-17
D511	6-501-654-01	DIODE	LBAT54CLT1G
D602	6-501-782-01	DIODE	MAZ8180GMLS0
D603	8-719-422-67	DIODE	MA8062-H
D604	6-501-782-01	DIODE	MAZ8180GMLS0
D605	6-501-782-01	DIODE	MAZ8180GMLS0
D606	8-719-072-70	DIODE	MA2ZD14001S0
D607	6-501-571-01	DIODE	1N5404-C311-3
D701	6-501-782-01	DIODE	MAZ8180GMLS0
D702	6-501-782-01	DIODE	MAZ8180GMLS0

Ref. No.	Part No.	Description	Remark
		< FERRITE BEAD >	
FB401	1-414-595-11	INDUCTOR, FERRITE BEAD	
FB402	1-216-864-11	SHORT CHIP 0	
FB403	1-216-864-11	SHORT CHIP 0	
FB404	1-216-295-11	SHORT CHIP 0	
FB405	1-216-864-11	SHORT CHIP 0	
FB406	1-216-864-11	SHORT CHIP 0	
FB407	1-216-295-11	SHORT CHIP 0	
FB408	1-216-864-11	SHORT CHIP 0	
		< IC >	
IC300	6-705-359-11	IC TDA8588AJ/N2/R1/M5	
IC401	6-710-065-01	IC BD3442FS-E2	
IC501	6-807-655-01	IC MB90F045PF-G-9060-SPE1	
IC502	6-711-653-01	IC S-1206B33-U3T1G	
IC601	6-703-884-01	IC BA8271F-E2	
IC602	8-759-659-13	IC PST3428UL	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J370	1-566-822-41	JACK (REMOTE IN)	
J451	1-774-700-41	JACK, PIN 6P (BUS AUDIO IN, REAR AUDIO OUT,FRONT AUDIO OUT)	
		< JUMPER RESISTOR >	
JC3	1-216-864-11	SHORT CHIP 0	
JC53	1-216-864-11	SHORT CHIP 0	
JC300	1-216-296-11	SHORT CHIP 0	
JC301	1-216-296-11	SHORT CHIP 0	
JC302	1-216-296-11	SHORT CHIP 0	
JC304	1-216-864-11	SHORT CHIP 0	
JC305	1-216-296-11	SHORT CHIP 0	
JC350	1-216-296-11	SHORT CHIP 0	
JC400	1-216-295-11	SHORT CHIP 0	
JC401	1-216-864-11	SHORT CHIP 0	
JC490	1-216-296-11	SHORT CHIP 0	
JC491	1-216-296-11	SHORT CHIP 0	
JC501	1-216-296-11	SHORT CHIP 0	
JC503	1-216-296-11	SHORT CHIP 0	
JC504	1-216-296-11	SHORT CHIP 0	
JC508	1-216-296-11	SHORT CHIP 0	
JC509	1-216-864-11	SHORT CHIP 0	
JC511	1-216-864-11	SHORT CHIP 0	
JC512	1-216-864-11	SHORT CHIP 0	
JC518	1-216-296-11	SHORT CHIP 0	
JC522	1-216-295-11	SHORT CHIP 0	
JC523	1-216-864-11	SHORT CHIP 0	
JC524	1-216-296-11	SHORT CHIP 0	
JC600	1-216-864-11	SHORT CHIP 0	
JC602	1-216-296-11	SHORT CHIP 0	
JC603	1-216-296-11	SHORT CHIP 0	
		< COIL >	
L1	1-500-245-11	INDUCTOR, FERRITE BEAD	
L4	1-469-844-11	INDUCTOR 2.2uH	
L101	1-410-509-11	INDUCTOR 10uH	
L300	1-456-617-11	COIL, CHOKE	
L301	1-216-864-11	SHORT CHIP 0	
L302	1-216-864-11	SHORT CHIP 0	
L303	1-216-864-11	SHORT CHIP 0	
L500	1-469-844-11	INDUCTOR 2.2uH	
		< TRANSISTOR >	
Q3	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q420	6-551-856-01	TRANSISTOR LTC614TKFP8T146	
Q430	6-551-856-01	TRANSISTOR LTC614TKFP8T146	
Q440	6-551-856-01	TRANSISTOR LTC614TKFP8T146	
Q460	6-551-856-01	TRANSISTOR LTC614TKFP8T146	
Q470	6-551-856-01	TRANSISTOR LTC614TKFP8T146	
Q491	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q492	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q501	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q589	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q590	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q600	8-729-047-76	TRANSISTOR FMC2A-T148	
Q601	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q605	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q702	8-729-620-07	TRANSISTOR 2SC3052EF-T1-LEF	
		< RESISTOR >	
R2	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R3	1-216-843-11	METAL CHIP 68K 5% 1/10W	
R4	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R5	1-216-843-11	METAL CHIP 68K 5% 1/10W	
R6	1-414-595-11	INDUCTOR, FERRITE BEAD	
R7	1-414-595-11	INDUCTOR, FERRITE BEAD	
R10	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R12	1-414-595-11	INDUCTOR, FERRITE BEAD	
R13	1-414-595-11	INDUCTOR, FERRITE BEAD	
R144	1-249-413-11	CARBON 470 5% 1/4W	
R146	1-249-413-11	CARBON 470 5% 1/4W	
R301	1-216-811-11	METAL CHIP 150 5% 1/10W	
R302	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R351	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R355	1-216-834-11	METAL CHIP 12K 5% 1/10W	
R356	1-216-834-11	METAL CHIP 12K 5% 1/10W	
R357	1-414-595-11	INDUCTOR, FERRITE BEAD	
R358	1-414-595-11	INDUCTOR, FERRITE BEAD	
R359	1-500-329-21	INDUCTOR, FERRITE BEAD	
R361	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R370	1-216-809-11	METAL CHIP 100 5% 1/10W	
R371	1-216-809-11	METAL CHIP 100 5% 1/10W	
R400	1-216-296-11	SHORT CHIP 0	
R401	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R402	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R407	1-216-864-11	SHORT CHIP 0	
R411	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R416	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R417	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R418	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R419	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R421	1-216-813-11	METAL CHIP 220 5% 1/10W	
R422	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R431	1-216-813-11	METAL CHIP 220 5% 1/10W	
R432	1-216-833-11	METAL CHIP 10K 5% 1/10W	

MAIN **SERVO**

Ref. No.	Part No.	Description			Remark
R433	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R441	1-216-813-11	METAL CHIP	220	5%	1/10W
R442	1-216-833-11	METAL CHIP	10K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
R453	1-216-864-11	SHORT CHIP	0		
R454	1-216-864-11	SHORT CHIP	0		
R455	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R461	1-216-813-11	METAL CHIP	220	5%	1/10W
R471	1-216-813-11	METAL CHIP	220	5%	1/10W
R474	1-216-864-11	SHORT CHIP	0		
R480	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R481	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R482	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R483	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R484	1-216-821-11	METAL CHIP	1K	5%	1/10W
R491	1-216-805-11	METAL CHIP	47	5%	1/10W
R494	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R500	1-216-817-11	METAL CHIP	470	5%	1/10W
R501	1-216-845-11	METAL CHIP	100K	5%	1/10W
R504	1-216-845-11	METAL CHIP	100K	5%	1/10W
R505	1-216-845-11	METAL CHIP	100K	5%	1/10W
R509	1-216-845-11	METAL CHIP	100K	5%	1/10W
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-216-845-11	METAL CHIP	100K	5%	1/10W
R513	1-216-809-11	METAL CHIP	100	5%	1/10W
R514	1-216-809-11	METAL CHIP	100	5%	1/10W
R515	1-216-809-11	METAL CHIP	100	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-216-845-11	METAL CHIP	100K	5%	1/10W
R518	1-216-845-11	METAL CHIP	100K	5%	1/10W
R519	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R520	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R521	1-216-821-11	METAL CHIP	1K	5%	1/10W
R522	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R523	1-216-845-11	METAL CHIP	100K	5%	1/10W
R524	1-216-845-11	METAL CHIP	100K	5%	1/10W
R525	1-216-845-11	METAL CHIP	100K	5%	1/10W
R526	1-216-841-11	METAL CHIP	47K	5%	1/10W
R527	1-216-845-11	METAL CHIP	100K	5%	1/10W
R528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R534	1-216-845-11	METAL CHIP	100K	5%	1/10W
R535	1-216-809-11	METAL CHIP	100	5%	1/10W
R536	1-216-811-11	METAL CHIP	150	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W
R538	1-216-845-11	METAL CHIP	100K	5%	1/10W
R539	1-216-809-11	METAL CHIP	100	5%	1/10W
R540	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-849-11	METAL CHIP	220K	5%	1/10W
R543	1-216-845-11	METAL CHIP	100K	5%	1/10W
R545	1-216-845-11	METAL CHIP	100K	5%	1/10W
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W
R547	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R548	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R549	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-864-11	SHORT CHIP	0		
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R554	1-216-821-11	METAL CHIP	1K	5%	1/10W
R555	1-216-833-11	METAL CHIP	10K	5%	1/10W
R556	1-216-833-11	METAL CHIP	10K	5%	1/10W
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-809-11	METAL CHIP	100	5%	1/10W
R559	1-216-845-11	METAL CHIP	100K	5%	1/10W
R562	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W
R575	1-216-845-11	METAL CHIP	100K	5%	1/10W
R577	1-216-845-11	METAL CHIP	100K	5%	1/10W
R579	1-216-845-11	METAL CHIP	100K	5%	1/10W
R580	1-216-845-11	METAL CHIP	100K	5%	1/10W
R582	1-216-845-11	METAL CHIP	100K	5%	1/10W
R584	1-216-845-11	METAL CHIP	100K	5%	1/10W
R601	1-216-851-11	METAL CHIP	330K	5%	1/10W
R602	1-216-851-11	METAL CHIP	330K	5%	1/10W
R603	1-216-821-11	METAL CHIP	1K	5%	1/10W
R604	1-216-835-11	METAL CHIP	15K	5%	1/10W
R605	1-216-809-11	METAL CHIP	100	5%	1/10W
R606	1-216-821-11	METAL CHIP	1K	5%	1/10W
R607	1-216-821-11	METAL CHIP	1K	5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R610	1-216-809-11	METAL CHIP	100	5%	1/10W
R611	1-216-809-11	METAL CHIP	100	5%	1/10W
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-216-841-11	METAL CHIP	47K	5%	1/10W
R707	1-216-841-11	METAL CHIP	47K	5%	1/10W
R708	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

< SWITCH >

S102	1-786-458-11	SWITCH, PUSH (1 KEY) (FRONT PANEL DETECT)
S103	1-786-826-11	SWITCH, TACTILE (RESET)

< THERMISTOR (POSITIVE) >

TH400	1-803-350-21	THERMISTOR, POSITIVE

< TUNER UNIT >

TU1	A-3220-961-B	TUNER UNIT (TUX-032)

< VIBRATOR >

X500	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)
X501	1-767-317-11	VIBRATOR, CRYSTAL (32.768kHz)

****

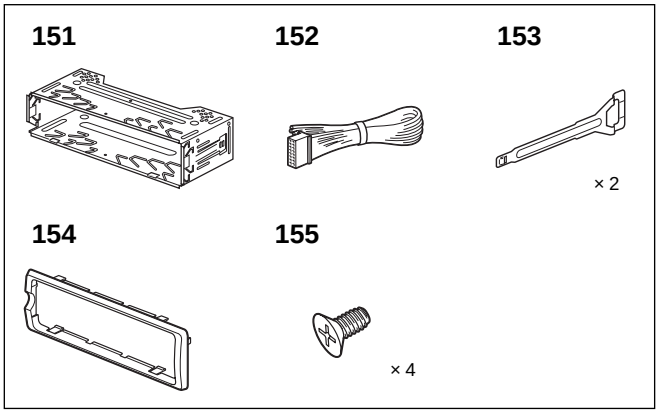
	A-1177-362-A	SERVO BOARD, COMPLETE

****

****

Ref. No.	Part No.	Description	Remark
		SUB BOARD	
		**********	
		< CONNECTOR >	
CN201	1-819-782-11	SOCKET, CONNECTOR 16P	
		< DIODE >	
LED201	6-501-547-01	LED CL-197HB1E-D-T (DISC IN)	
LED202	6-501-547-01	LED CL-197HB1E-D-T (⏏)	
		< RESISTOR >	
R201	1-216-815-11	METAL CHIP 330 5%	1/10W
R202	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
		< SWITCH >	
S201	1-786-653-21	SWITCH, TACTILE (⏏)	
**********			
		MISCELLANEOUS	
		**********	
3	1-834-507-11	CABLE, FLEXIBLE FLAT (17 CORE) (CN202)	
12	1-833-974-21	CONNECTION CORD FOR AUTOMOBILE	(POWER)
13	1-833-887-11	CONNECTION CORD (RCA) (SUB OUT (MONO))	
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
**********			
		ACCESSORIES	
		**********	
	1-479-077-13	REMOTE COMMANDER (RM-X151)	
	2-548-729-01	LID, BATTERY CASE (for RM-X151)	
	3-217-494-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	(GT52W:CND/GT520)
	3-217-494-61	MANUAL, INSTRUCTION (ENGLISH,SPANISH)	(GT52W:US)
	3-217-595-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	(GT52W:CND/GT520)
	3-217-595-61	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH)	(GT52W:US)
**********			

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
151	X-2179-431-1	FRAME ASSY, FITTING	
152	1-833-974-21	CONNECTION CORD FOR AUTOMOBILE	(POWER)
153	3-246-471-01	KEY (FRAME)	
154	3-209-713-01	COLLAR	
155	3-934-325-01	SCREW, +K (5X8) TAPPING	



REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the top of the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2007. 07	New